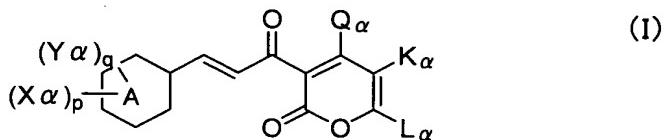


CLAIMS

1. A cinnamoyl compound represented by the formula (I):



wherein

I. A represents a benzene ring or a pyridine ring; and in

5 (Y_α)_q, Y_α is a substituent on a carbon atom and represents a group included in the following X₀ group or Y₀ group, q represents 0, 1, 2, 3 or 4, and Y_αs are the same or different when q is 2 or more and the adjacent two same or different Y_αs together may form a group included in the Z₀ group to be fused to the A ring when q is 2 or more; and in
10 (X_α)_p, X_α represents a substituent on a carbon atom which does not belong to the following X₀ group, Y₀ group and Z₀ group, p represents 1, 2, 3, 4 or 5, and X_αs may be the same or different when p is 2 or more; and the sum of p and
15 q is 5 or less;

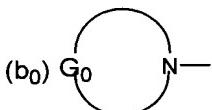
(1) the X₀ group: a M_a-group, wherein M_a represents a R_b- group (wherein R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_c-B_a-R_d- group (wherein R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents

an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d- group (wherein R_d is as defined above), a R_e-CO-R_d- group (wherein R_e represents a hydrogen atom, or a 5 C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a $R_e-CO-O-R_d-$ group (wherein R_e and R_d are as defined above), a $R_eO-CO-R_d-$ group (wherein R_e and R_d are as defined above), a $HO-CO-CH=CH-$ group, a $R_eR_e'N-R_d-$ group (wherein R_e and R_e' are the same 10 or different, R_e is as defined above, R_e' has the same meaning as R_e has, and R_d is as defined above), a $R_e-CO-NR_e'-R_d-$ group (wherein R_e , R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d-$ group (wherein R_b , R_e and R_d are as 15 defined above), a $R_eR_e'N-CO-R_d-$ group (wherein R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d-$ group (wherein R_e , R_e' and R_e'' are the same or different, R_e and R_e' are as defined above, R_e'' has the same meaning as R_e has, and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d-$ group 20 (wherein R_e , R_e' , R_e'' and R_e''' are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as R_e has, and R_d is as defined above), a R_b-SO_2- NR_e-R_d- group (wherein R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d-$ group (wherein R_e , R_e' and R_d are as defined 25 above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

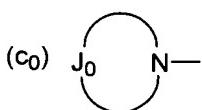
(2) the Y_0 group: a $M_{b0}-R_d-$ group, wherein M_{b0}

represents a $M_{c0}-$ group

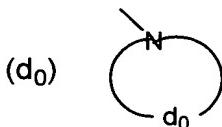
[wherein M_{c0} represents a $M_{d0}-R_d'$ - group [wherein M_{d0} represents a 6 to 10-membered aryl group optionally substituted with a M_a - group (wherein M_a is as defined above), a 5 to 10-membered heteroaryl group optionally substituted with a M_a -group (wherein M_a is as defined above), a 3 to 10-membered cyclic hydrocarbon or heterocyclic group optionally substituted with a M_a - group (wherein M_a is as defined above) and optionally containing an unsaturated bond, a $(b_0)-$ group



(in the $(b_0)-$ group, G_0 forms an optionally substituted, saturated or unsaturated, nonaromatic 5 to 14-membered cyclic hydrocarbon or heterocyclic ring), a $(c_0)-$ group

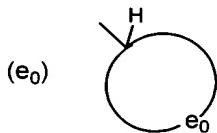


(in the $(C_0)-$ group, J_0 forms a 5 to 7-membered aromatic ring optionally containing a nitrogen atom), a $(d_0)-$ group



[wherein d_0 forms a 5 to 12-membered hydrocarbon ring which is substituted with a carbonyl group or a thiocabonyl group and further which may be optionally substituted with an oxy group, a thio group, a $-NR_1-$ group {wherein R_1

represents a hydrogen atom, a C₁-C₁₀ alkyl group, a C₂-C₁₀ alkyl group substituted with a halogen atom or a R₂-B₁- group (wherein R₂ represents a C₁-C₁₀ alkyl group, a C₃-C₁₀ alkenyl group or a C₃-C₁₀ alkynyl group, and B₁ represents 5 an oxy group, a thio group, a sulfinyl group or a sulfonyl group), a C₃-C₁₀ alkenyl group, or a C₃-C₁₀ alkynyl group}, a sulfinyl group or a sulfonyl group] or a (e₀)- group



{wherein e₀ forms a 5 to 12-membered hydrocarbon ring 10 optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR₁- group (wherein R₁ is as defined above), a sulfinyl group or a sulfonyl group}; and R_{d'} is the same as or different from R_d and has the same meaning as R_d has]], 15 a M_{c0}-B_a- group (wherein M_{c0} and B_a are as defined above), a M_{c0}-CO- group (wherein M_{c0} is as defined above), a M_{c0}-CO-O- group (wherein M_{c0} is as defined above), a M_{c0}O-CO- group (wherein M_{c0} is as defined above), a M_{c0}R_eN- group (wherein M_{c0} and R_e are as defined above), a M_{c0}-CO-NR_e- group 20 (wherein M_{c0} and R_e are as defined above), a M_{c0}O-CO-NR_e- group (wherein M_{c0} and R_e are as defined above), a M_{c0}R_eN-CO- group (wherein M_{c0} and R_e are as defined above), a M_{c0}R_eN-CO-NR_{e'}- group (wherein M_{c0}, R_e and R_{e'} are as defined above), a M_{c0}R_eN-C(=NR_{e'})-NR_{e''}- group (wherein M_{c0}, R_e, R_{e'} and R_{e''}

are as defined above), a $M_{c0}-SO_2-NR_e-$ group (wherein M_{c0} and R_e are as defined above) or a $M_{c0}R_eN-SO_2-$ group (wherein M_{c0} and R_e are as defined above), and
 R_d is as defined above;

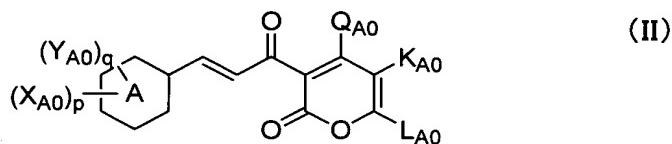
5 (3) the Z_0 group: a 5 to 12-membered cyclic hydrocarbon or heterocyclic ring optionally substituted with a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a
10 sulfinyl group or a sulfonyl group, which is an aromatic or nonaromatic and monocyclic or fused ring and which is fused to the A ring;

II. Q_α represents an optionally substituted hydroxy group, or an optionally substituted amino group;

15 III. K_α and L_α are the same or different, and represent a hydrogen atom, or a substituent on a carbon atom, or K_α and L_α may form a C1-C10 alkylene group optionally having a substituent or a C1-C10 alkenylene group optionally having a substituent; and

20 the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected
25 is the same, selected substituents may be the same or different as long as they are selected within the range;

2. A cinnamoyl compound represented by the formula (II):



wherein

I. A represents a benzene ring or a pyridine ring;

5 II. in $(X_{A0})_p$, X_{A0} is a substituent on a carbon atom and represents a group included in any group of the following A_0 to N_0 groups, p represents 1, 2, 3, 4 or 5, and when p is 2 or more, X_{A0} s are the same or different;

(1) the A_0 group:

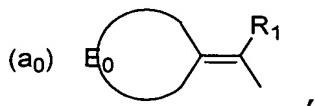
10 a D_1-R_4- group [wherein D_1 represents a $(R_1-(O)_k-)A_1N-(O)_k'-$ group [wherein R_1 represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2-B_1 -group (wherein R_2 represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group, k represents 0 or 1, A_1 represents a $R_3-(CHR_0)_m-(B_2-B_3)_m'$ - group { wherein R_3 represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2-B_1 -

group (wherein R₂ and B₁ are as defined above), or a C₂-C₁₀ alkenyl group, or a C₂-C₁₀ alkynyl group, R₀ represents a hydrogen atom, a C₁-C₁₀ alkyl group or a C₂-C₁₀ haloalkyl group, m represents 0 or 1, B₂ represents a single bond, an
 5 oxy group, a thio group or a -N((O)_nR₁')- group (wherein R₁' is the same as or different from R₁, and has the same meaning as R₁ has, and n represents 0 or 1), B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, m' represents 0 or 1, and when B₃ is a sulfonyl group, it
 10 does not occur that m is 0 and R₃ is a hydrogen atom at the same time}, and k' represents 0 or 1], and R₄ represents a C₁-C₁₀ alkylene group, provided that a R₀'R₀"N-R₄- group (wherein R₀' and R₀" are the same as or different from R₀ and have the same meaning as R₀ has, and
 15 R₄ is as defined above) is excluded],

a D₂-R₄- group[wherein D₂ represents a cyano group, a R₁R₁'NC(=N-(O)_n-A₁)- group (wherein R₁, R₁', n and A₁ are as defined above), an A₁N=C(-OR₂)- group (wherein A₁ and R₂ are as defined above) or a NH₂-CS- group, and R₄ is as defined
 20 above],

a D₃-R₄- group[wherein D₃ represents a nitro group or a R₁OSO₂- group (wherein R₁ is as defined above), and R₄ is as defined above], or

a R₁OSO₂- group[wherein R₁ is as defined above];
 25 (2) the B₀ group: an (a₀)- group



in the (a_0) - group, E_0 forms an optionally substituted, saturated or unsaturated, aromatic or nonaromatic 5 to 14-membered cyclic hydrocarbon or heterocyclic ring, and R_1 is as defined above;

5

10

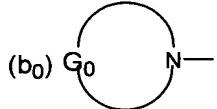
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(3) the C_0 group: a C2-C10 alkenyl group substituted with a halogen atom, a R_2-B_1- group (wherein R_2 and B_1 are as defined above), a D_4-R_4- group [wherein D_4 represents a hydroxy group or an A_1-O- group (wherein A_1 is as defined above), and R_4 is as defined above], a D_5- group [wherein D_5 represents a $O=C(R_3)-$ group (wherein R_3 is as defined above), an $A_1-(O)_n-N=C(R_3)-$ group (wherein A_1 , n and R_3 are as defined above), a $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)-$ group {wherein R_1 , R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N((O)_mR_1')-$ group (wherein R_1' and m are as defined above)}, a $D_2-R_4-(O)_n-N=C(R_3)-$ group (wherein D_2 , R_4 , n and R_3 are as defined above) or a $R_1A_1N-N=C(R_3)-$ group (wherein R_1 , A_1 and R_3 are as defined above)], a $R_1A_1N-O-R_4-$ group (wherein R_1 , A_1 and R_4 are as defined above), a $R_1(A_1-(O)_n-)N-$ group (wherein R_1 , A_1 and n are as defined above), a D_2- group (wherein D_2 is as defined above) or a D_3- group (wherein D_3 is as defined above);

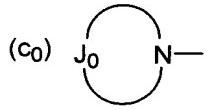
(4) the D_0 group: a C2-C10 alkynyl group substituted

with a $(b_0)-R_4-$ group (in (b_0))



G_0 forms an optionally substituted, saturated or unsaturated, nonaromatic 5 to 14-membered cyclic

5 hydrocarbon or heterocyclic ring), a $(c_0)-R_4-$ group (in (c_0))



J_0 forms an aromatic 5 to 7-membered ring optionally containing a nitrogen atom and R_4 is as defined above), a halogen atom, a $R_2-B_1-R_4-$ group (wherein R_2 , B_1 and R_4 are as defined above), a D_4-R_4- group (wherein D_4 and R_4 are as defined above), a D_5- group (wherein D_5 is as defined above), a D_1-R_4- group (wherein D_1 and R_4 are as defined above), a D_2- group (wherein D_2 is as defined above) or a D_3-R_4- group (wherein D_3 and R_4 are as defined above);

15 (5) the E_0 group: an A_2-CO-R_5- group, provided that R_5 is not a vinylene group when A_2 is a hydroxy group, wherein A_2 represents

(i) an A_3-B_4- group

wherein A_3 represents a hydrogen atom, or a C1-C10

20 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_{a0}-(R_4)_m-$ group (wherein R_{a0} represents

an optionally substituted 5 to 7-membered aryl group or heteroaryl group, and R₄ and m are as defined above), or a C1-C10 alkyl group substituted with a (b₀)-R₄- group (wherein (b₀) and R₄ are as defined above), a (c₀)-R₄- group (wherein (c₀) and R₄ are as defined above), a R₂-B₁-R₄- group (wherein R₂, B₁ and R₄ are as defined above), a D₄-R₄- group (wherein D₄ and R₄ are as defined above), a D₅- group (wherein D₅ is as defined above), a D₁-R₄- group (wherein D₁ and R₄ are as defined above), a D₂- group (wherein D₂ is as defined above), a D₃-R₄- group (wherein D₃ and R₄ are as defined above) or an A₄-SO₂-R₄- group {wherein A₄ represents a (b₀)- group (wherein (b₀) is as defined above), a (c₀)- group (wherein (c₀) is as defined above) or a R₁R_{1'}N- group (wherein R₁ and R_{1'} are as defined above), and R₄ is as defined above}, and

B₄ represents an oxy group, a thio group or a -N((O)_mR₁)- group (wherein R₁ and m are as defined above), provided that A₃ is not a hydrogen atom when B₄ is a thio group;

(ii) a R₁-B₄-CO-R₄-B_{4'}- group, wherein R₁, B₄ and R₄ are as defined above, B_{4'} is the same as or different from B₄ and has the same meaning as B₄ has, provided that R₂ is not a hydrogen atom when B₄ is a thio group, or
a D₂-R₄-B₄- group, wherein D₂, R₄ and B₄ are as defined above;

(iii) a $R_2-SO_2-NR_1-$ group, wherein R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above;

(iv) a $(b_0)-$ group, wherein (b_0) is as defined above;

5 (v) a $(c_0)-$ group, wherein (c_0) is as defined above;

or

(vi) a $R_1A_1N-NR_1'$ - group, wherein R_1 , A_1 and R_1' are as defined above; and

R_5 represents a C2-C10 alkenylene group optionally

10 substituted with a halogen atom or a C2-C10 alkynylene group;

(6) the F_0 group: an $A_5-B_5-R_6-$ group

wherein A_5 represents a C2-C10 alkyl group substituted with a D_4- group (wherein D_4 is as defined above), a D_1-

15 group (wherein D_1 is as defined above), a D_3- group

(wherein D_3 is as defined above) or an A_4-SO_2- group

(wherein A_4 is as defined above), or a C1-C10 alkyl group substituted with a R_2-B_1- group (wherein R_2 and B_1 are as defined above), a D_2- group (wherein D_2 is as defined

20 above), a D_5- group (wherein D_5 is as defined above) or an A_2-CO- group (wherein A_2 is as defined above),

B_5 represents a B_1- group (wherein B_1 is as defined above) or a $-NA_1-$ group (wherein A_1 is as defined above), and

25 R_6 represents a single bond or a C1-C10 alkylene

group;

(7) the G₀ group: an A₆-B₅-R₆- group

wherein A₆ represents an (a₀)-R₄- group (wherein (a₀) and R₄ are as defined above), or a C₂-C₁₀ alkenyl group, or

5 a C₂-C₁₀ alkynyl group, or a C₂-C₁₀ alkenyl group

substituted with a halogen atom, a R₂-B₁- group (wherein R₂ and B₁ are as defined above), a D₅- group (wherein D₅ is as defined above), a D₂- group (wherein D₂ is as defined

above) or an A₂-CO- group (wherein A₂ is as defined above) ,

10 or a C₂-C₁₀ alkynyl group substituted with a halogen atom,

a R₂-B₁- group (wherein R₂ and B₁ are as defined above), a

D₅- group (wherein D₅ is as defined above), D₂- group

(wherein D₂ is as defined above) or an A₂-CO- group

(wherein A₂ is as defined above), or a C₃-C₁₀ alkenyl

15 group substituted with a (b₀)- group (wherein (b₀) is as defined above), a (c₀)- group (wherein (c₀) is as defined

above), a D₄- group (wherein D₄ is as defined above), a D₁-

group (wherein D₁ is as defined above) or a D₃- group

(wherein D₃ is as defined above), or a C₃-C₁₀ alkynyl group

20 substituted with a D₄- group (wherein D₄ is as defined

above), a D₁- group (wherein D₁ is as defined above) or a

D₃- group (wherein D₃ is as defined above), and

B₅ and R₆ are as defined above;

(8) the H₀ group:

25 a D₂-N(-(O)_n-A₁)-R₆- group (wherein D₂, n, A₁ and R₆ are

as defined above),

a D₂- group (wherein D₂ is as defined above, provided that a cyano group is excluded),

a R₁(R_{1'}(O)_n)N-CR_{1''}=N-R₆- group (wherein R₁, R_{1'}, n and R₆ are as defined above, R_{1''} is the same as or different from R₁ and has the same meaning as that of R₁),

a R₁-(O)_n-N=CR_{1'}-NR₂-R₆- group (wherein R₁, n, R_{1'}, R₂ and R₆ are as defined above),

a R₂-B₃-NR₁-CO-NR_{1'}-R₆- group (wherein R₂, B₃, R₁, R_{1'} and R₆ are as defined above),

a D₂-CO-NR₁-R₆- group (wherein D₂, R₁ and R₆ are as defined above) or

an A₂-COCO-NR₁-R₆- group (wherein A₂, R₁ and R₆ are as defined above);

15 (9) the I₀ group:

an A₇-B₆-N((O)_nR₁)-R₆- group [wherein A₇ represents a C₂-C₁₀ alkenyl group optionally substituted with a halogen atom, or a C₂-C₁₀ alkynyl group, or a C₃-C₁₀ haloalkynyl group, or a R₂-B₁-R₄- group (wherein R₂, B₁ and R₄ are as defined above), or a D₄-R₄- group (wherein D₄ and R₄ are as defined above), or a D₅-R₄- group (wherein D₅ and R₄ are as defined above), or a D₁-R₄- group (wherein D₁ and R₄ are as defined above), or a (b₀)-R₄- group (wherein (b₀) and R₄ are as defined above), or a (c₀)-R₄- group (wherein (c₀) and R₄ are as defined above), or a D₂-R₄- group (wherein D₂ and R₄

are as defined above), or a D₃-R₄- group (wherein D₃ and R₄ are as defined above), or an A₄-SO₂-R₄- group (wherein A₄ and R₄ are as defined above), or an A₂-CO-R₄- group (wherein A₂ and R₄ are as defined above), B₆ represents a carbonyl group or a thiocarbonyl group, and n, R₁ and R₆ are as defined above],

5 an A₈-CS-N((O)_nR₁)-R₆- group [wherein A₈ represents a hydrogen atom or a C1-C10 alkyl group optionally substituted with a halogen atom, and n, R₁ and R₄ are as defined above],

10 an A_{7'}-B_{2'}-B₃-N((O)_nR₁)-R₆- group [wherein A_{7'} represents a C3-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R₂-B₁-R_{4'}- group 15 (wherein R₂ and B₁ are as defined above, and R_{4'} represents a C2-C10 alkylene group), or a D₄-R_{4'}- group (wherein D₄ and R_{4'} are as defined above), or a D₁-R_{4'}- group (wherein D₁ and R_{4'} are as defined above), or a (b₀)-R_{4'}- group (wherein (b₀) and R_{4'} are as defined above), or a (c₀)-R_{4'}- group 20 (wherein (c₀) and R_{4'} are as defined above), or a D₂-R₄- group (wherein D₂ and R₄ are as defined above), or a D₃-R_{4'}- group (wherein D₃ and R_{4'} are as defined above), or an A₂-CO-R₄- group (wherein A₂ and R₄ are as defined above), B_{2'} represents an oxy group, a thio group or a -N((O)_{n'}R_{1'})- 25 group (wherein n' is the same as or different from n and

has the same meaning as that of n, and R_{1'} is as defined above), and B₃, n, R₁ and R₆ are as defined above],

5 an A_{8'}-B_{2'}-CS-N((O)_nR₁)-R₆- group [wherein A_{8'} represents a C1-C10 alkyl group or a C2-C10 haloalkyl group, B_{2'} is as defined above, and n, R₁ and R₆ are as defined above],

an A_{8'}-S-B_{3'}-N((O)_nR₁)-R₆- group [wherein A_{8'}, n, R₁ and R₆ are as defined above, and B_{3'} represents a carbonyl group or a sulfonyl group] or

10 an A_{7''}-SO₂-N((O)_nR₁)-R₆- group [wherein A_{7''} represents a C2-C10 alkenyl group, or a C3-C10 alkenyl group substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R₂-B₁-R_{4'}- group (wherein R₂, B₁ and R_{4'} are as defined above), or a D₄-R_{4'}- group (wherein D₄ and R_{4'} are as defined above), or a D₅-R₄- group (wherein D₅ and R₄ are as defined above), or a D₁-R_{4'}- group (wherein D₁ and R_{4'} are as defined above), or a (b₀)-R_{4'}- group (wherein (b₀) and R_{4'} are as defined above), or a (c₀)-R_{4'}- group (wherein (c₀) and R_{4'} are as defined above), or a D₂-R₄- group (wherein D₂ and R₄ are as defined above), or a NO₂-R₄- group (wherein R₄ is as defined above), or an A₂-CO-R₄- group (wherein A₂ and R₄ are as defined above), and n, R₁ and R₆ are as defined above];

(10) the J₀ group:

25 an A₇-CO- group (wherein A₇ is as defined above),

- an $A_9\text{-CS-}$ group (wherein A_9 represents A_7 or A_8),
 an $A_9' (O)_m N=C(A_9)-$ group (wherein A_9' represents A_7' or
 A_8' , and m and A_9 are as defined above),
 a $D_2\text{-CO-}$ group (wherein D_2 is as defined above),
 5 an $A_2\text{-COCO-}$ group (wherein A_2 is as defined above),
 an $A_9\text{-CO-}B_1'\text{-}R_6\text{-}$ group (wherein A_9 and R_6 are as
 defined above, and B_1' represents an oxy group or a thio
 group, provided that A_9 is not A_8 when B_1' is an oxy group),
 an $A_9\text{-CS-}B_1'\text{-}R_6\text{-}$ group (wherein A_9 , B_1' and R_6 are as
 10 defined above),
 an $A_7''\text{-SO}_2\text{-}B_1'\text{-}R_6\text{-}$ group (wherein A_7'' , B_1' and R_6 are as
 defined above),
 an $A_8\text{-SO}_2\text{-}B_1'\text{-}R_6\text{-}$ group (wherein A_8 , B_1' and R_6 are as
 defined above, provided that A_8 is not a hydrogen atom),
 15 an $A_9'\text{-}B_2'\text{-}B_3\text{-}B_1'\text{-}R_6\text{-}$ group (wherein A_9' , B_2' , B_3 , B_1'
 and R_6 are as defined above), or
 a C2-C10 alkenyl group substituted with a $(b_0)\text{-}$ group
 (wherein (b_0) is as defined above) or a $(c_0)\text{-}$ group
 (wherein (c_0) is as defined above);
 20 (11) the K_0 group: an $A_{10}\text{-N}((O)_n R_1)\text{-CO-}R_6\text{-}$ group
 wherein A_{10} represents a hydrogen atom (provided that
 n is not 0), an $A_7''\text{-SO}_2\text{-}$ group (wherein A_7'' is as defined
 above), an $A_8\text{-SO}_2\text{-}$ group (wherein A_8 is as defined above,
 provided that A_8 is not a hydrogen atom), an $A_9'\text{O-}$ group
 25 (wherein A_9' is as defined above, provided that n is not 1),

an A_9' - group (wherein A_9' is as defined above, provided that A_8' is excluded when n is 0), a R_2OCH_2 - group (wherein R_2 is as defined above), an A_2-CO-R_4 - group (wherein A_2 and R_4 are as defined above) or an $A_2-CO-CH(CH_2CO-A_2)$ - group (wherein A_2 is as defined above), and n , R_1 and R_6 are as defined above;

5 (12) the L_0 group:

an $A_{10}'-N((O)_nR_1)-SO_2-R_6$ - group [wherein A_{10}' represents a hydrogen atom (provided that n is not 0), an $A_9'O$ - group (wherein A_9' is as defined above, provided that n is not 1), an A_9' - group (wherein A_9' is as defined above, provided that A_8' is excluded when n is 0), a R_2-CO - group (wherein R_2 is as defined above), an A_2-CO-R_4 - group (wherein A_2 and R_4 are as defined above) or an $A_2-CO-CH(CH_2CO-A_2)$ - group (wherein A_2 is as defined above), and n , R_1 and R_6 are as defined above],

15 an $A_9''R_1N-SO_2-N((O)_nR_1')-R_6$ - group [wherein A_9'' represents a hydrogen atom or an A_9' - group (wherein A_9' is as defined above), and R_1 , n , R_1' and R_6 are as defined above] or

20 a $(b_0)-SO_2-N((O)_nR_1')-R_6$ - group [wherein (b_0) , n , R_1' and R_6 are as defined above];

(13) the M_0 group:

25 a $R_1(R_2S)C=N-R_6$ - group (wherein R_1 , R_2 and R_6 are as defined above),

a $R_2B(R_2'B')C=N-R_6-$ group (wherein R_2 and R_6 are as defined above, R_2' is the same as or different from R_2 and has the same meaning as that of R_2 , and B and B' are the same or different and represent an oxy group or a thio group),

a $R_1R_1'N-(R_2S)C=N-R_6-$ group (wherein R_1 , R_1' , R_2 and R_6 are as defined above),

a $R_1N=C(SR_2)-NR_2'-R_6-$ group (wherein R_1 , R_2 , R_2' and R_6 are as defined above) or

10 a $R_1(R_1'O)N-R_6-$ group (wherein R_1 , R_1' and R_6 are as defined above);

(14) the N_0 group: a $A_{11}-P(=O)(OR_1')-R_4-$ group

wherein A_{11} represents a R_1- group (wherein R_1 is as defined above), a R_1O-R_6- group (wherein R_1 and R_6 are as defined above) or a $R_1OCO-CHR_0-$ group (wherein R_1 and R_0 are as defined above), and R_1' and R_4 are as defined above;

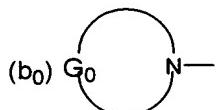
III. in $(Y_{A0})_q$, Y_{A0} is a substituent on a carbon atom and represents a group included in the following X_0 group and Y_0 group, q represents 0, 1, 2, 3 or 4, the sum of p (wherein p is as defined above) and q is 5 or less, $Y_{A0}s$ are the same as or different when q is 2 or more, and the adjacent two same or different $Y_{A0}s$ may form a group included in the Z_0 group to be fused to the A ring when q is 2 or more;

(1) the X_0 group: a M_a- group, wherein M_a represents a R_b- group (wherein R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a $R_c-B_a-R_d-$ group (wherein R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d- group (wherein R_d is as defined above), a R_e-CO-R_d- group (wherein R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a $R_e-CO-O-R_d-$ group (wherein R_e and R_d are as defined above), a $R_eO-CO-R_d-$ group (wherein R_e and R_d are as defined above), a $HO-CO-CH=CH-$ group, a $R_eR_e'N-R_d-$ group (wherein R_e and R_e' are the same or different, R_e is as defined above, R_e' has the same meaning as R_e has, and R_d is as defined above), a $R_e-CO-NR_e'-R_d-$ group (wherein R_e , R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d-$ group (wherein R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d-$ group (wherein R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d-$ group (wherein R_e , R_e' and R_e'' are the same or different, R_e and R_e' are as defined above, R_e'' has the same meaning as R_e has, and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-NRe'''-R_d-$ group (wherein R_e , R_e' , R_e'' and R_e''' are the same or different,

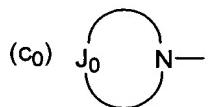
R_e , $R_{e'}$ and $R_{e''}$ are as defined above, $R_{e'''}$ has the same meaning as R_e has, and R_d is as defined above), a $R_b-SO_2-NR_e-R_d-$ group (wherein R_b , R_e and R_d are as defined above), a $R_eR_{e'}N-SO_2-R_d-$ group (wherein R_e , $R_{e'}$ and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

5 (2) the Y_0 group: a $M_{b0}-R_d-$ group, wherein M_{b0} represents a $M_{c0}-$ group

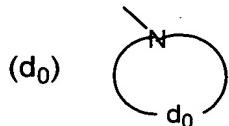
[wherein M_{c0} represents a $M_{d0}-R_d'$ - group [wherein M_{d0} represents a 6 to 10-membered aryl group optionally substituted with a M_a- group (wherein M_a is as defined above), a 5 to 10-membered heteroaryl group optionally substituted with a M_a- group (wherein M_a is as defined above), a 3 to 10-membered cyclic hydrocarbon or heterocyclic group which is optionally substituted with a M_a- group (wherein M_a is as defined above) and which 10 optionally contains an unsaturated bond, or a $(b_0)-$ group 15 $(c_0)-$ group or a $(d_0)-$ group]



(wherein (b_0) forms as defined above), a $(c_0)-$ group



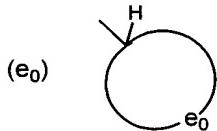
20 (wherein (c_0) forms as defined above), a $(d_0)-$ group



{wherein d_0 forms a 5 to 12-membered hydrocarbon ring which

is substituted with a carbonyl group or a thiocarbonyl group and further which may be optionally substituted with an oxy group, a thio group, a $-NR_1-$ group (wherein R_1 is as defined above), a sulfinyl group or a sulfonyl group} or a

5 $(e_0)-$ group



{wherein e_0 forms a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a $-NR_1-$ group (wherein R_1 is as defined above), a sulfinyl group or a sulfonyl group}, and R_d' is the same as or different from R_d and has the same meaning as R_d has]],
 a $M_{c0}-B_a-$ group (wherein M_{c0} and B_a are as defined above), a
 10 $M_{c0}-CO-$ group (wherein M_{c0} is as defined above), a $M_{c0}-CO-O-$ group (wherein M_{c0} is as defined above), a $M_{c0}O-CO-$ group (wherein M_{c0} is as defined above), a $M_{c0}ReN-$ group (wherein
 15 M_{c0} and Re are as defined above), a $M_{c0}-CO-NRe-$ group (wherein M_{c0} and Re are as defined above), a $M_{c0}O-CO-NRe-$ group (wherein M_{c0} and Re are as defined above), a $M_{c0}ReN-CO-$
 20 group (wherein M_{c0} and Re are as defined above), a $M_{c0}ReN-CO-NRe'$ group (wherein M_{c0} , Re and Re' are as defined above), a $M_{c0}ReN-C(=NR_e)-NR_e''-$ group (wherein M_{c0} , Re , Re' and Re'' are as defined above), a $M_{c0}-SO_2-NRe-$ group (wherein M_{c0} and Re are as defined above) or a $M_{c0}ReN-SO_2-$ group (wherein M_{c0}

and R_e are as defined above), and

R_d is as defined above;

(3) the Z_0 group: a 5 to 12-membered cyclic hydrocarbon or heterocyclic ring optionally substituted with a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, which is an aromatic or nonaromatic and monocyclic or fused ring and which is fused to the A ring;

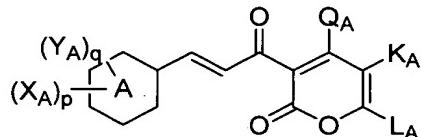
IV. Q_{A0} represents a hydroxyl group, a $(b_0)-$ group (wherein b_0 is as defined above), an $A_9-B_6-B_c-$ group [wherein A_9 and B_6 are as defined above, and B_c represent an oxy group or a $-N((O)_mR_1)-$ group (wherein m and R_1 are as defined above), provided that B_c is not a sulfonyl group when A_9 is a hydrogen atom], an $A_7''-SO_2-B_c-$ group (wherein A_7'' and B_c are as defined above), an $A_8-SO_2-B_c-$ group (wherein A_8 and B_c are as defined above, provided that A_8 is not a hydrogen atom), a $R_1R_1'N-SO_2-B_c-$ group (wherein R_1 , R_1' and B_c are as defined above), a $(b_0)-SO_2-B_c-$ group (wherein (b_0) and B_c are as defined above), an $A_9'-B_c-$ group (wherein A_9' and B_c are as defined above), a $D_5-R_4-B_c-$ group (wherein D_5 , R_4 and B_c are as defined above), a $M_{c0}-B_3-B_c-$ group (wherein M_{c0} , B_3 and B_c are as defined above) or a $M_{c0}-B_c-$ group (wherein M_{c0} and B_c are as defined above);

V. K_{A0} represents a hydrogen atom, a halogen atom, or a C10 alkyl group, L_{A0} represents a hydrogen atom, or a M_{b0} -group (M_{b0} is as defined above), or K_{A0} and L_{A0} may form a C1-C10 alkylene group, or a C1-C10 alkenylene group 5 optionally substituted with single or the same or different plural M_a groups; and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as 10 that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

15 3. A cinnamoyl compound represented by the formula (III):

(III)



wherein

I. A represents a benzene ring or a pyridine ring;

II. in $(X_A)_p$, X_A is a substituent on a carbon atom and 20 represents a group included in any group or the following A

to N groups, p represents 1, 2, 3, 4 or 5, and, X_{AS} are the same or different when p is 2 or more,

(1) the A group:

a D₁-R₄- group, wherein D₁ represents a (R₁-(O)_k-(A₁N-

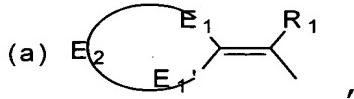
5 (O)_{k'}- group [wherein R₁ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R₂-B₁- group (wherein R₂ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B₁ represents an oxy group, a thio group,
10 a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group, k represents 0 or 1, A₁ represents a R₃-(CHR₀)_m-(B₂-B₃)_{m'}- group {wherein R₃ represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R₂-B₁-group
15 (wherein R₂ and B₁ are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R₀ represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m represents 0 or 1, B₂ represents a single bond, an oxy group, a thio group or a -N((O)_nR_{1'})- group (wherein R_{1'} is the same as or different from R₁ and has the same meaning as R₁ has, and n represents 0 or 1), B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, m' represents 0 or 1, and when B₃ is a sulfonyl group, it does not occur that m is 0 and R₃ is a hydrogen atom at
20 the same time}, and k' represents 0 or 1], and R₄

represents a C1-C10 alkylene group, provided that a R_{0'}R_{0''}N-R₄-group (wherein R_{0'} and R_{0''} are the same as or different from R₀ and has the same meaning as R₀ has, and R₄ is as defined above) is excluded,

5 a D₂-R₄- group, wherein D₂ represents a cyano group, a R₁R_{1'}NC(=N-(O)_n-A₁)-group (wherein R₁, R_{1'}, n and A₁ are as defined above), an A₁N=C(-OR₂)-group (wherein A₁ and R₂ are as defined above) or a NH₂-CS-group, and R₄ is as defined above,

10 a D₃-R₄- group, wherein D₃ represents a nitro group or a R₁OSO₂- group (wherein R₁ is as defined above), and R₄ is as defined above, or
a R₁OSO₂- group, wherein R₁ is as defined above;

(2) the B group: an (a)-group

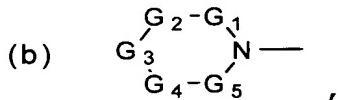


in (a), E₁ and E_{1'} represent a methylene group optionally substituted with a C1-C10 alkyl group or a C1-C10 alkoxy group, or a carbonyl group, provided that E₁ and E_{1'} are not a carbonyl group at the same time, E₂ represents a C2-C10 alkylene group optionally substituted with an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR_{1'}- group (wherein R_{1'} is as defined above), or a C3-C10 alkenylene group optionally substituted with an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -

NR_{1'}- group (wherein R_{1'} is as defined above), and R₁ is as defined above;

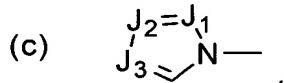
(3) the C group: a C₂-C₁₀ alkenyl group substituted with a halogen atom, a R₂-B₁- group (wherein R₂ and B₁ are as defined above), a D₄-R₄- group [wherein D₄ represents a hydroxyl group or an A₁-O- group (wherein A₁ is as defined above), and R₄ is as defined above], a D₅- group [wherein D₅ represents an O=C(R₃)- group (wherein R₃ is as defined above), an A₁-(O)_n-N=C(R₃)- group (wherein A₁, n and R₃ are as defined above), a R₁-B₀-CO-R₄-(O)_n-N=C(R₃)- group 10 {wherein R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR_{1'})- group (wherein R_{1'} and m are as defined above)}, a D₂-R₄-(O)_n-N=C(R₃)- group (wherein D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)- group (wherein R₁, A₁ and R₃ are as defined above)], a R₁A₁N-O-R₄- group (wherein R₁, A₁ and R₄ are as defined above), a R₁(A₁-(O)n-)N- group (wherein R₁, A₁ and n are as defined above), a D₂- group (wherein D₂ is as defined above) or a D₃- group (wherein D₃ is as 15 defined above);

(4) the D group: a C₂-C₁₀ alkynyl group substituted with a (b)-R₄- group [wherein, in (b)



G₁, G₂, G₄ and G₅ represent a methylene group which is

connected with the adjacent atom via a single bond and which may be optionally substituted with a methyl group, or a methine group which is connected with the adjacent atom via a double bond and which may be optionally substituted
5 with a methyl group, and G₃ represents a single bond, a double bond, a C₁-C₁₀ alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR₁- group (wherein R₁ is as defined above), or a C₂-C₁₀ alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR₁- group
10 (wherein R₁ is as defined above); and R₄ is as defined above], a (c)-R₄- group (wherein, in (c)



15 J₁, J₂ and J₃ are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom; and R₄ is as defined above), a halogen atom, a R₂-B₁-R₄- group (wherein R₂, B₁ and R₄ are as defined above), a D₄-R₄- group (wherein D₄ and R₄ are as defined above), a D₅- group (wherein D₅ is as defined above), a D₁-R₄- group (wherein D₁ and R₄ are as defined above), a D₂-group (wherein D₂ is as defined above) or a D₃-R₄- group (wherein D₃ and R₄ are as defined above);

(5) the E group: an A₂-CO-R₅- group, provided that R₅

is not a vinylene group when A₂ is a hydroxyl group,
wherein A₂ represents

(i) an A₃-B₄- group

wherein A₃ represents a hydrogen atom, or a C1-C10

5 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10
alkenyl group optionally substituted with a halogen atom,
or a C3-C10 alkynyl group optionally substituted with a
halogen atom, or R_a-(R₄)_m- group (wherein R_a represents a
phenyl group, a pyridyl group, a furyl group or a thienyl
group, which may be optionally substituted with a halogen
10 atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a
nitro group, and R₄ and m are as defined above), or a C1-
C10 alkyl group substituted with a (b)-R₄- group (wherein
(b) and R₄ are as defined above), a (c)-R₄- group (wherein
15 (c) and R₄ are as defined above), a R₂-B₁-R₄- group (wherein
R₂, B₁ and R₄ are as defined above), a D₄-R₄- group (wherein
D₄ and R₄ are as defined above), a D₅- group (wherein D₅ is
as defined above), a D₁-R₄- group (wherein D₁ and R₄ are as
defined above), a D₂- group (wherein D₂ is as defined
20 above), a D₃-R₄- group (wherein D₃ and R₄ are as defined
above) or an A₄-SO₂-R₄- group { wherein A₄ represents a (b)-
group (wherein (b) is as defined above), a (c)- group
(wherein (c) is as defined above) or a R₁R_{1'}N- group
(wherein R₁ and R_{1'} are as defined above), and R₄ is as
25 defined above}, and

B_4 represents an oxy group, a thio group or a $-N((O)_mR_1)-$ group (wherein R_1 and m are as defined above), provided that A_3 is not a hydrogen atom when B_4 is a thio group,

5 (ii) a $R_1-B_4-CO-R_4-B_4'$ - group

wherein R_1 , B_4 and R_4 are as defined above, B_4' is the same as or different from B_4 and has the same meaning as B_4 has, provided that R_2 is not a hydrogen atom when B_4 is a thio group, or

10 a $D_2-R_4-B_4$ -group, wherein D_2 , R_4 and B_4 are as defined above,

(iii) a $R_2-SO_2-NR_1$ - group

wherein R_2 is as defined above, provided that a hydrogen atom is excluded; and R_1 is as defined above,

15 (iv) a (b)- group, wherein (b) is as defined above,

(v) a (c)- group, wherein (c) is as defined above, or

(vi) a $R_1A_1N-NR_1'$ - group, wherein R_1 , A_1 and R_1' are as defined above, and

R_5 represents a C₂-C₁₀ alkenylene group optionally

20 substituted with a halogen atom, or a C₂-C₁₀ alkynylene group;

(6) the F group: an $A_5-B_5-R_6$ - group

wherein A_5 represents a C₂-C₁₀ alkyl group substituted with a D_4 - group (wherein D_4 is as defined above), a D_1 - group (wherein D_1 is as defined above), a D_3 - group

(wherein D_3 is as defined above) or an $A_4\text{-SO}_2^-$ group (wherein A_4 is as defined above), or a C1-C10 alkyl group substituted with a $R_2\text{-B}_1^-$ group (wherein R_2 and B_1 are as defined above), a D_2^- group (wherein D_2 is as defined above), a D_5^- group (wherein D_5 is as defined above) or an $A_2\text{-CO-}$ group (wherein A_2 is as defined above), B_5 represents a B_1^- group (wherein B_1 is as defined above) or a -NA_1^- group (wherein A_1 is as defined above), and R_6 represents a single bond or a C1-C10 alkylene group;

(wherein D₁ is as defined above) or a D₃- group (wherein D₃ is as defined above), or a C₃-C₁₀ alkynyl group substituted with a D₄- group (wherein D₄ is as defined above), a D₁- group (wherein D₁ is as defined above) or a D₃- group (wherein D₃ is as defined above), and B₅ and R₆ are as defined above;

5 (8) the H group:

a D₂-N(-(O)_n-A₁)-R₆- group (wherein D₂, n, A₁ and R₆ are as defined above),

10 a D₂- group (wherein D₂ is as defined above, provided that a cyano group is excluded),

a R₁ (R_{1'}(O)_n)N-CR_{1''}=N-R₆- group (wherein R₁, R_{1'}, n and R₆ are as defined above, R_{1''} is the same as or different from R₁ and has the same meaning as R₁ has),

15 a R₁-(O)_n-N=CR_{1'}-NR₂-R₆- group (wherein R₁, n, R_{1'}, R₂ and R₆ are as defined above),

a R₂-B₃-NR₁-CO-NR_{1'}-R₆- group (wherein R₂, B₃, R₁, R_{1'} and R₆ are as defined above),

20 a D₂-CO-NR₁-R₆- group (wherein D₂, R₁ and R₆ are as defined above) or

an A₂-COCO-NR₁-R₆- group (wherein A₂, R₁ and R₆ are as defined above);

(9) the I group:

25 an A₇-B₆-N((O)_nR₁)-R₆- group [wherein A₇ represents a C₂-C₁₀ alkenyl group optionally substituted with a halogen

atom, or a C₂-C₁₀ alkynyl group, or a C₃-C₁₀ haloalkynyl group, or a R₂-B₁-R₄- group (wherein R₂, B₁ and R₄ are as defined above), or a D₄-R₄- group (wherein D₄ and R₄ are as defined above), or a D₅-R₄- group (wherein D₅ and R₄ are as defined above), or a D₁-R₄- group (wherein D₁ and R₄ are as defined above), or a (b)-R₄- group (wherein (b) and R₄ are as defined above), or a (c)-R₄- group (wherein (c) and R₄ are as defined above), or a D₂-R₄- group (wherein D₂ and R₄ are as defined above), or a D₃-R₄- group (wherein D₃ and R₄ are as defined above), or an A₄-SO₂-R₄- group (wherein A₄ and R₄ are as defined above), or an A₂-CO-R₄- group (wherein A₂ and R₄ are as defined above), B₆ represents a carbonyl group or a thiocarbonyl group, and n, R₁ and R₆ are as defined above],

15 an A₈-CS-N((O)_nR₁)-R₆- group [wherein A₈ represents a hydrogen atom or a C₁-C₁₀ alkyl group optionally substituted with a halogen atom, and n, R₁ and R₆ are as defined above],

20 an A_{7'}-B_{2'}-B₃-N((O)_nR₁)-R₆- group [wherein A_{7'} represents a C₃-C₁₀ alkenyl group optionally substituted with a halogen atom, or a C₃-C₁₀ alkynyl group optionally substituted with a halogen atom, or a R₂-B₁-R_{4'}- group (wherein R₂ and B₁ are as defined above, and R_{4'} represents a C₂-C₁₀ alkylene group), or a D₄-R_{4'}- group (wherein D₄ and R_{4'} are as defined above), or a D₁-R_{4'}- group (wherein D₁

and R_{4'} are as defined above), or a (b)-R_{4'}- group (wherein
 (b) and R_{4'} are as defined above), or a (c)-R_{4'}- group

(wherein (c) and R_{4'} are as defined above), or a D₂-R₄-
 group (wherein D₂ and R₄ are as defined above), or a D₃-R_{4'}-

5 group (wherein D₃ and R_{4'} are as defined above), or an A₂-
 CO-R₄- group (wherein A₂ and R₄ are as defined above), B_{2'}
 represents an oxy group, a thio group or a -N((O)_{n'}R_{1'})-
 group (wherein n' is the same as or different from n and
 has the same meaning as n has, and R_{1'} is as defined above),
 10 and B₃, n, R₁ and R₆ are as defined above],

an A_{8'}-B_{2'}-CS-N((O)_nR₁)-R₄- group [wherein A_{8'}
 represents a C1-C10 alkyl group or a C2-C10 haloalkyl group,
 B_{2'} is as defined above, and n, R₁ and R₆ are as defined
 above],

15 an A_{8'}-S-B_{3'}-N((O)_nR₁)-R₆- group [wherein A_{8'}, n, R₁ and
 R₆ are as defined above, and B_{3'} represents a carbonyl
 group or a sulfonyl group] or

an A_{7''}-SO₂-N((O)_nR₁)-R₆- group [wherein A_{7''} represents a
 C2-C10 alkenyl group, or a C3-C10 alkenyl group substituted
 20 with a halogen atom, or a C3-C10 alkynyl group optionally
 substituted with a halogen atom, or a R₂-B₁-R_{4'}- group

(wherein R₂, B₁ and R_{4'} are as defined above), or a D₄-R_{4'}-
 group (wherein D₄ and R_{4'} are as defined above), or a D₅-R₄-
 group (wherein D₅ and R₄ are as defined above), or a D₁-R_{4'}-
 25 group (wherein D₁ and R_{4'} are as defined above), or a (b)-

R_4' - group (wherein (b) and R_4' are as defined above), or a (c)- R_4' - group (wherein (c) and R_4' are as defined above), or a D_2 - R_4 - group (wherein D_2 and R_4 are as defined above), or a NO_2 - R_4 - group (wherein R_4 is as defined above), or an 5 A_2 -CO- R_4 - group (wherein A_2 and R_4 are as defined above), and n, R_1 and R_4 are as defined above];

(10) the J group:

an A_7 -CO- group (wherein A_7 is as defined above),

an A_9 -CS- group (wherein A_9 represents A_7 or A_8),

10 an $A_9'(O)_mN=C(A_9)$ - group (wherein A_9' represents A_7' or A_8' , and m and A_9 are as defined above),

a D_2 -CO- group (wherein D_2 is as defined above),

an A_2 -COCO- group (wherein A_2 is as defined above),

an A_9 -CO- B_1' - R_6 - group (wherein A_9 and R_6 are as

15 defined above, and B_1' represents an oxy group or a thio group, provided that A_9 is not A_8 when B_1' is an oxy group),

an A_9 -CS- B_1' - R_6 - group (wherein A_9 , B_1' and R_6 are as defined above),

20 an A_7'' -SO₂- B_1' - R_6 - group (wherein A_7'' , B_1' and R_6 are as defined above),

an A_8 -SO₂- B_1' - R_6 - group (wherein A_8 , B_1' and R_6 are as defined above, provided that A_8 is not a hydrogen atom),

an A_9' - B_2' - B_3 - B_1' - R_6 - group (wherein A_9' , B_2' , B_3 , B_1' and R_6 are as defined above), or

25 a C₂-C₁₀ alkenyl group substituted with a (b)- group

(wherein (b) is as defined above) or a (c)- group (wherein (c) is as defined above);

(11) the K group: an $A_{10}-N((O)_nR_1)-CO-R_6-$ group

wherein A_{10} represents a hydrogen atom (provided that

5 n is not 0), an $A_7''-SO_2-$ group (wherein A_7'' is as defined above), an A_8-SO_2- group (wherein A_8 is as defined above, provided that A_8 is not a hydrogen atom), an $A_9'O-$ group (wherein A_9' is as defined above, provided that n is not 1), an $A_9'-$ group (wherein A_9' is as defined above, provided that A_8' is excluded when n is 0), a R_2OCH_2- group (wherein R_2 is as defined above), an A_2-CO-R_4- group (wherein A_2 and R_4 are as defined above) or an $A_2-CO-CH(CH_2CO-A_2)-$ group (wherein A_2 is as defined above), and n , R_1 and R_6 are as defined above;

15 (12) the L group:

an $A_{10}'-N((O)_nR_1)-SO_2-R_6-$ group [wherein A_{10}' represents a hydrogen atom (provided that n is not 0), an $A_9'O-$ group (wherein A_9' is as defined above, provided that n is not 1), an $A_9'-$ group (wherein A_9' is as defined above, provided that A_8' is excluded when n is 0), a R_2-CO- group (wherein R_2 is as defined above), an A_2-CO-R_4- group (wherein A_2 and R_4 are as defined above) or an $A_2-CO-CH(CH_2CO-A_2)-$ group (wherein A_2 is as defined above), and n , R_1 and R_6 are as defined above],

25 an $A_9'' R_1 N-SO_2-N((O)_nR_1')-R_6-$ group [wherein A_9''

represents a hydrogen atom or an A_9' - group (wherein A_9' is as defined above), and R_1 , n , R_1' and R_6 are as defined above] or

5 a (b)- $\text{SO}_2\text{-N}((\text{O})_n\text{R}_1')-\text{R}_6-$ group [wherein (b), n , R_1' and R_6 are as defined above];

(13) the M group:

a $R_1(\text{R}_2\text{S})\text{C}=\text{N}-\text{R}_6-$ group (wherein R_1 , R_2 and R_6 are as defined above),

10 a $R_2\text{B}(\text{R}_2'\text{B}')\text{C}=\text{N}-\text{R}_6-$ group (wherein R_2 and R_6 are as defined above, R_2' is the same as or different from R_2 and has the same meaning as R_2 has, and B and B' are the same or different and represent an oxy group or a thio group),

a $R_1\text{R}_1'\text{N}-(\text{R}_2\text{S})\text{C}=\text{N}-\text{R}_6-$ group (wherein R_1 , R_1' , R_2 and R_6 are as defined above),

15 a $R_1\text{N}=\text{C}(\text{SR}_2)-\text{NR}_2'-\text{R}_6-$ group (wherein R_1 , R_2 , R_2' and R_6 are as defined above) or

a $R_1(\text{R}_1'\text{O})\text{N}-\text{R}_6-$ group (wherein R_1 , R_1' and R_6 are as defined above);

(14) the N group: an $A_{11}\text{-P}(=\text{O})(\text{OR}_1')-\text{R}_4-$ group

20 wherein A_{11} represents a R_1- group (wherein R_1 is as defined above), a $R_1\text{O}-\text{R}_6-$ group (wherein R_1 and R_6 are as defined above) or a $R_1\text{OCO-CHR}_0-$ group (wherein R_1 and R_0 are as defined above), and R_1' and R_4 are as defined above;

25 III. in $(Y_A)_q$, Y_A is a substituent on a carbon atom and

represents a group included in the following X group or Y group, q represents 0, 1, 2, 3 or 4, the sum of p (wherein p is as defined above) and q is 5 or less, Y_As are the same or different when q is 2 or more, and the adjacent two same
5 or different Y_As together may form a group included in the Z group to be fused to the A ring when q is 2 or more,

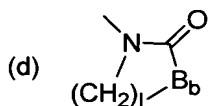
(1) the X group: a M_a- group

wherein M_a represents a R_b- group (wherein R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a R_c-B_a-R_d- group (wherein R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-15 C10 alkylene group), a HOR_d- group (wherein R_d is as defined above), a R_e-CO-R_d- group (wherein R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e-CO-O-R_d- group (wherein R_e and R_d are as defined above), a R_eO-CO-R_d- group (wherein R_e and R_d are as defined above), a HO-CO-CH=CH- group, a R_eR_{e'}N-R_d- group (wherein R_e and R_{e'} are the same or different, R_e is as defined above, R_{e'} has the same meaning as R_e has, and R_d is as defined above), a R_e-CO-NR_{e'}-R_d- group (wherein R_e, R_{e'} and R_d are as defined above), a R_bO-CO-N(R_e)-R_d- group

(wherein R_b , R_e and R_d are as defined above), a $R_e R_e' N - CO - R_d -$ group (wherein R_e , R_e' and R_d are as defined above), a $R_e R_e' N - CO - NR_e'' - R_d -$ group (wherein R_e , R_e' and R_e'' are the same or different, R_e and R_e' are as defined above, R_e'' has 5 the same meaning as R_e has, and R_d is as defined above), a $R_e R_e' N - C(=NR_e'') - N R e''' - R_d -$ group (wherein R_e , R_e' , R_e'' and R_e''' are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as R_e has, and R_d is as defined above), a $R_b - SO_2 - NR_e - R_d -$ group (wherein R_b , R_e 10 and R_d are as defined above), a $R_e R_e' N - SO_2 - R_d -$ group (wherein R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

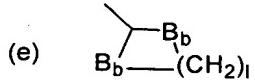
(2) the Y group: a $M_b - R_d -$ group, wherein M_b represents a $M_c -$ group

15 [wherein M_c represents a $M_d - R_d' -$ group [wherein M_d represents a phenyl group optionally substituted with a $M_a -$ group (wherein M_a is as defined above), a pyridyl group optionally substituted with a $M_a -$ group (wherein M_a is as defined above), a naphthyl group optionally substituted 20 with a $M_a -$ group (wherein M_a is as defined above), a (b)-group (wherein (b) is as defined above), a (c)- group (wherein (c) is as defined above), a (d)- group



(wherein l is 2, 3 or 4, B_b represents an oxy group or a

thio group) or an (e)- group



(wherein l and B_b are as defined above), and R_{d'} is the same as or different from R_d and has the same meaning as R_d 5 has]],

a M_c-B_a- group (wherein M_c and B_a are as defined above), a M_c-CO- group (wherein M_c is as defined above), a M_c-CO-O- group (wherein M_c is as defined above), a M_cO-CO- group (wherein M_c is as defined above), a M_cR_eN- group (wherein M_c and R_e are as defined above), a M_c-CO-NR_e- group (wherein M_c and R_e are as defined above), a M_cO-CO-NR_e- group (wherein M_c and R_e are as defined above), a M_cR_eN-CO- group (wherein M_c and R_e are as defined above), a M_cR_eN-CO-NR_e'- group (wherein M_c, R_e and R_e' are as defined above), a M_cR_eN- 10 C(=NR_e')-NR_e''- group (wherein M_c, R_e, R_e' and R_e'' are as defined above), a M_c-SO₂-NR_e- group (wherein M_c and R_e are as defined above) or a M_cR_eN-SO₂- group (wherein M_c and R_e are as defined above), and 15 R_d is as defined above;

20 (3) the Z group:

a -N=C(Y_a)-Y_a'- group (wherein Y_a represents a hydrogen atom, or a C₁-C₁₀ alkyl group optionally substituted with a halogen atom, or a C₁-C₁₀ alkoxy group, and Y_a' represents an oxy group, a thio group, or an imino group optionally

substituted with a C1-C10 alkyl group),

a -Y_b-Y_{b'}-Y_{b''}- group (wherein Y_b and Y_{b''} are the same or different, and represent a methylene group, an oxy group, a thio group, a sulfinyl group, or an imino group

5 optionally substituted with a C1-C10 alkyl group, and Y_{b'} represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or

a -Y_c-O-Y_{c'}-O- group (wherein Y_c and Y_{c'} are the same or different, and represent a C1-C10 alkylene group);

IV. Q_A represents a hydroxyl group, a (b)- group (wherein (b) is as defined above), an A₉-B₆-B_c- group [wherein A₉ and B₆ are as defined above, and B_c represents an oxy group or

15 a -N((O)_mR₁)- group (wherein m and R₁ are as defined above), provided that B_c is not a sulfonyl group when A₉ is a

hydrogen atom], an A_{7''}-SO₂-B_c- group (wherein A_{7''} and B_c are as defined above), an A₈-SO₂-B_c- group (wherein A₈ and B_c are as defined above, provided that A₈ is not a hydrogen

20 atom), a R₁R_{1'}N-SO₂-B_c- group (wherein R₁, R_{1'} and B_c are as defined above), a (b)-SO₂-B_c- group (wherein (b) and B_c are as defined above), an A_{9'}-B_c- group (wherein A_{9'} and B_c are as defined above), a D₅-R_c-B_c- group (wherein D₅, R₄ and B_c are as defined above), a M_c-B₃-B_c- group (wherein M_c, B₃ and

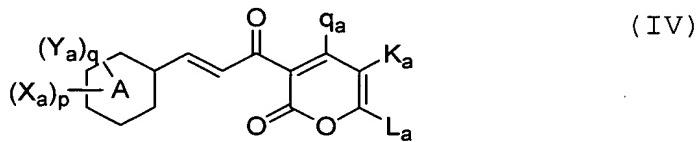
25 B_c are as defined above) or a M_c-B_c- group (wherein M_c and

B_c are as defined above);

V. K_A represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_A represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_A and L_A may form a C1-C10 alkylene group or a $-C(M_a')=C(M_a'')-$ $C(M_a'')=C(M_a''')$ -group (M_a' , M_a'' , M_a''' and M_a'''' are the same or different, are the same as or different from M_a , and represent a hydrogen atom or M_a) ; and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

4. A cinnamoyl compound represented by the formula (IV) :



wherein

A represents a benzene ring or a pyridine ring,
 X_a is a substituent on a carbon atom, and represents a

C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxycarbonyl group; a C3-C10 alkynyl group substituted with a hydroxyl group; an $a_0-r_1-b-r_1'$ - group {wherein a_0 represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a r_2O-CO- group (wherein r_2 represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a $rr'N-CO-$ group (wherein r and r' are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an $a_1-NH-CO-$ group (wherein a_1 represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an $a_1'-CO-$ group (wherein a_1' represents a morpholino group), a $rr'N-CH_2-$ group (wherein r and r' are as defined above), a $r_0-(O)_1-$ CONH-CH₂- group (wherein r_0 represents a C1-C10 alkyl group, and 1 represents 0 or 1), a $r-OCH_2-$ group (wherein r is as defined above), a r_0-CO- group (wherein r_0 is as defined above), a cyano group, or a sulfomethyl group, r_1 represents a C1-C10 alkylene group, r_1' represents a single bond or a C1-C10 alkylene group, and b represents an oxy

group, a thio group, a sulfinyl group, a sulfonyl group or
a imino group}; an $a_2-y-CO-NH-$ group (wherein a_2 represents
a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,
and y represents an oxy group or an imino group); a r_0O-
5 COCO-NH- group (wherein r_0 is as defined above); an a_3-z-
NH- group (wherein a_3 represents a C2-C10 alkenyl group, or
a C1-C10 alkyl group substituted with a C1-C10 alkoxy group,
a C1-C10 alkoxy carbonyl group, a carboxy group or a cyano
group, and z represents a carbonyl group or a sulfonyl
group); an $a_4-NHCO-$ group {wherein a_4 represents a C1-C10
10 alkoxy group, or a C3-C10 alkenyloxy group, or a r_0-SO_2-
group (wherein r_0 is as defined above), or a C2-C10 alkyl
group substituted with a hydroxyl group or a C1-C10 alkoxy
group, or a C1-C10 alkyl group substituted with a $rO-CO-$
15 group (wherein r is as defined above), a cyano group or an
aminocarbonyl group, or a $rO-CO-(rO-COCH_2)CH-$ group
(wherein r is as defined above)}; an a_5-NHSO_2- group
(wherein a_5 represents a C2-C10 alkyl group substituted
with a C1-C10 alkoxy group); a $r_0ON=CH-$ group (wherein r_0
20 is as defined above); a $r_0NHCSNH-$ group (wherein r_0 is as
defined above); a $r_0NHC(-Sr_0')=N-$ group (wherein r_0 is as
defined above, r_0' is the same as the different from r_0 and
has the same meaning as r_0 has); or a $(r_0O)_2P(=O)CH_2-$ group
(wherein r_0 is as defined above);
25 p represents 1, 2 or 3, and when p is 2 or more, X_{as}

are the same or different;

Y_a represents a halogen atom, a nitro group, a r₀CO-NH- group (wherein r₀ is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

5 q represents 0, 1 or 2, and when q is 2 or more, Y_as are the same or different;

q_a represents a r_a-O- group {wherein r_a represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a r₀r₀'N-CH₂- group (wherein r₀ and r₀' are as defined above), a rOCH₂- group (wherein r is as defined above), a r₀-CO- group (wherein r₀ is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a r₃-r₁-group (wherein r₃ represents a phenyl group or a pyridyl group, and r₁ is as defined above)}; a piperidino group; a morpholino group; or a r₄r₄'N- group (wherein r₄ and r₄' are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that r₄ and r₄' are not a hydrogen atom at the same time);

K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and L_a represents a hydrogen atom or a C1-C10 alkyl group; or

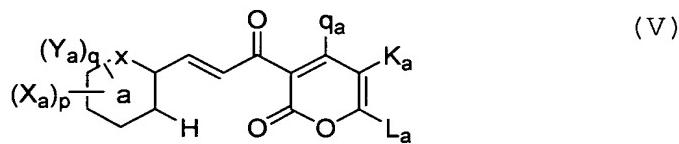
K_a and L_a together may form a C1-C10 alkylene group or a 1,3-butadienylene group;

the term "as defined above" used for the same symbols among plural substituents means that the plural

5 substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

10

5. A cinnamoyl compound represented by the formula (V) :



wherein

a represents a benzene ring or a pyridine ring;

x represents a methine group or a nitrogen atom;

15 X_a is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C3-C10 alkynyl group

substituted with a hydroxyl group; an $a_0-r_1-b-r_1'$ - group
{wherein a_0 represents a methyl group substituted with a
C1-C10 alkylthio group, a methyl group substituted with a
C1-C10 alkylsulfinyl group, a methyl group substituted with
5 a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-
C10 alkynyl group, a r_2O-CO- group (wherein r_2 represents a
C1-C10 alkyl group, or a C2-C10 alkyl group substituted
with a hydroxyl group), a carboxyl group, a $rr'N-CO-$ group
(wherein r and r' are the same or different, and represent
10 a hydrogen atom or a C1-C10 alkyl group), an $a_1-NH-CO-$
group (wherein a_1 represents a C2-C10 alkyl group
substituted with a C1-C10 alkoxy group), an $a_1'-CO-$ group
(wherein a_1' represents a morpholino group), a $rr'N-CH_2-$
group (wherein r and r' are as defined above), a $r_0-(O)_1-$
15 $CONH-CH_2-$ group (wherein r_0 represents a C1-C10 alkyl group,
and l represents 0 or 1), a $r-OCH_2-$ group (wherein r is as
defined above), a r_0-CO- group (wherein r_0 is as defined
above), a cyano group, or a sulfomethyl group, r_1
represents a C1-C10 alkylene group, r_1' represents a single
20 bond or a C1-C10 alkylene group, and b represents an oxy
group, a thio group, a sulfinyl group, a sulfonyl group or
a imino group}; an $a_2-y-CO-NH-$ group (wherein a_2 represents
a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,
and y represents an oxy group or an imino group); a r_0O-
25 $COCO-NH-$ group (wherein r_0 is as defined above); an a_3-z-

NH- group (wherein a_3 represents a C₂-C₁₀ alkenyl group, or a C₁-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group, a C₁-C₁₀ alkoxycarbonyl group, a carboxy group or a cyano group, and z represents a carbonyl group or a sulfonyl

5 group); an a_4 -NHCO- group {wherein a_4 represents a C₁-C₁₀ alkoxy group, or a C₃-C₁₀ alkenyloxy group, or a r_0 -SO₂- group (wherein r_0 is as defined above), or a C₂-C₁₀ alkyl group substituted with a hydroxyl group or a C₁-C₁₀ alkoxy group, or a C₁-C₁₀ alkyl group substituted with a rO -CO-

10 group (wherein r is as defined above), a cyano group or an aminocarbonyl group, or a rO -CO-(rO -COCH₂)CH- group (wherein r is as defined above)}; an a_5 -NHSO₂- group (wherein a_5 represents a C₂-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group); a r_0 ON=CH- group (wherein r_0 is as defined above); a r_0 NHCSNH- group (wherein r_0 is as defined above); a r_0 NHC(-Sr_{0'})=N- group (wherein r_0 is as defined above, r_0' is the same as the different from r_0 and has the same meaning as r_0 has); or a (r_0 O)₂P(=O)CH₂- group (wherein r_0 is as defined above);

20 p represents 1, 2 or 3, and when p is 2 or more, X_{as} are the same or different;

Y_a represents a halogen atom, a nitro group, a r_0 CO-NH- group (wherein r_0 is as defined above), a C₁-C₁₀ alkyl group or a C₁-C₁₀ alkoxy group;

25 q represents 0, 1 or 2, and when q is 2 or more, Y_{as}

are the same or different;

q_a represents a r_a-O- group {wherein r_a represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a $r_0r_0'N-CH_2-$ group (wherein r_0 and r_0' are as defined above), a $rOCH_2-$ group (wherein r is as defined above), a r_0-CO- group (wherein r_0 is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a r_3-r_1 -group (wherein r_3 represents a phenyl group or a pyridyl group, and r_1 is as defined above)}; a piperidino group; a morpholino group; or a $r_4r_4'N-$ group (wherein r_4 and r_4' are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that r_4 and r_4' are not a hydrogen atom at the same time);

t_a represents a r_b- group (wherein r_b is the same as or different from r_a , and has the same meaning as r_a has) or a $r_3'-$ group (wherein r_3' is the same as or different from r_3 , and has the same meaning as r_3 has);

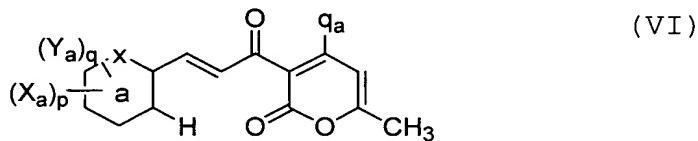
K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and L_a represents a hydrogen atom or a C1-C10 alkyl group; or

K_a and L_a together may form a C1-C10 alkylene group or

a 1,3-butadienylene group;

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

10 6. A 2H-pyran-2-one compound represented by the formula (VI):



wherein

a represents a benzene ring or a pyridine ring;

x represents a methine group or a nitrogen atom;

15 X_a is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C3-C10 alkynyl group

substituted with a hydroxyl group; an $a_0-r_1-b-r_1'$ - group
{wherein a_0 represents a methyl group substituted with a
C1-C10 alkylthio group, a methyl group substituted with a
C1-C10 alkylsulfinyl group, a methyl group substituted with
5 a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-
C10 alkynyl group, a r_2O-CO- group (wherein r_2 represents a
C1-C10 alkyl group, or a C2-C10 alkyl group substituted
with a hydroxyl group), a carboxyl group, a $rr'N-CO-$ group
(wherein r and r' are the same or different, and represent
10 a hydrogen atom or a C1-C10 alkyl group), an $a_1-NH-CO-$
group (wherein a_1 represents a C2-C10 alkyl group
substituted with a C1-C10 alkoxy group), an $a_1'-CO-$ group
(wherein a_1' represents a morpholino group), a $rr'N-CH_2-$
group (wherein r and r' are as defined above), a $r_0-(O)_1-$
15 $CONH-CH_2-$ group (wherein r_0 represents a C1-C10 alkyl group,
and l represents 0 or 1), a $r-OCH_2-$ group (wherein r is as
defined above), a r_0-CO- group (wherein r_0 is as defined
above), a cyano group, or a sulfomethyl group, r_1
represents a C1-C10 alkylene group, r_1' represents a single
20 bond or a C1-C10 alkylene group, and b represents an oxy
group, a thio group, a sulfinyl group, a sulfonyl group or
a imino group}; an $a_2-y-CO-NH-$ group (wherein a_2 represents
a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,
and y represents an oxy group or an imino group); a r_0O-
25 $COCO-NH-$ group (wherein r_0 is as defined above); an a_3-z-

NH- group (wherein a_3 represents a C₂-C₁₀ alkenyl group, or a C₁-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group, a C₁-C₁₀ alkoxycarbonyl group, a carboxy group or a cyano group, and z represents a carbonyl group or a sulfonyl

5 group); an a_4 -NHCO- group {wherein a_4 represents a C₁-C₁₀ alkoxy group, or a C₃-C₁₀ alkenyloxy group, or a r_0 -SO₂- group (wherein r_0 is as defined above), or a C₂-C₁₀ alkyl group substituted with a hydroxyl group or a C₁-C₁₀ alkoxy group, or a C₁-C₁₀ alkyl group substituted with a rO -CO-

10 group (wherein r is as defined above), a cyano group or an aminocarbonyl group, or a rO -CO-(rO -COCH₂)CH- group (wherein r is as defined above)}; an a_5 -NHSO₂- group (wherein a_5 represents a C₂-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group); a r_0 ON=CH- group (wherein r_0 is as

15 defined above); a r_0 NHCSNH- group (wherein r_0 is as defined above); a r_0 NHC(-Sr_{0'})=N- group (wherein r_0 is as defined above, r_0' is the same as the different from r_0 and has the same meaning as r_0 has); or a (r_0 O)₂P(=O)CH₂- group (wherein r_0 is as defined above);

20 p represents 1, 2 or 3, and when p is 2 or more, X_{as} are the same or different;

Y_a represents a halogen atom, a nitro group, a r_0 CO-NH- group (wherein r_0 is as defined above), a C₁-C₁₀ alkyl group or a C₁-C₁₀ alkoxy group;

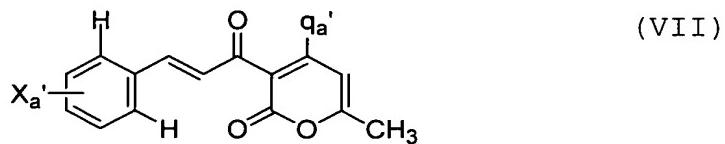
25 q represents 0, 1 or 2, and when q is 2 or more, Y_{as}

are the same or different;

q_a represents a r_a-O- group {wherein r_a represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a r₀r_{0'}N-CH₂- group (wherein r₀ and r_{0'} are as defined above), a rOCH₂- group (wherein r is as defined above), a r₀-CO- group (wherein r₀ is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a r₃-r₁-group (wherein r₃ represents a phenyl group or a pyridyl group, and r₁ is as defined above)}; a piperidino group; a morpholino group; or a r₄r_{4'}N- group (wherein r₄ and r_{4'} are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that r₄ and r_{4'} are not a hydrogen atom at the same time);

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

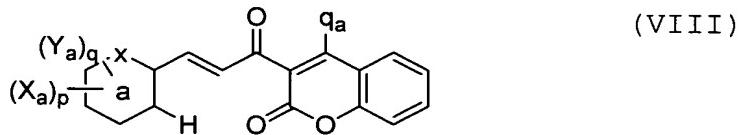
7. A 2H-pyran-2-one compound represented by the formula (VII) :



wherein

$X_{a'}$ represents a C1-C10 alkyl group substituted with a
5 cyano group, or a C2-C10 alkenyl group substituted with a halogen atom or a cyano group, or an $a_0'-r_1-O$ -group (a_0' represents a methyl group substituted with a C1-C10 alkylthio group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a HOCH₂-group or a cyano group, and r_1 represents a
10 C1-C10 alkylene group}, or an a_6 -CONH-group (a_6 represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C2-C10 alkoxy group substituted with a C1-C10 alkoxy group), or an a_7 -NHCO-group (a_7 represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C1-C10
15 alkyl group substituted with a C1-C10 alkoxycarbonyl group); $q_{a'}$ represents an amino group substituted with a C3-C10 alkynyl group, a piperidino group, a morpholino group or a $r_{a'}-O$ -group ($r_{a'}$ represents a hydrogen atom, a C1-C10 alkyl group or a C3-C10 alkenyl group).

8. A 2H-1-benzopyran-2-one compound represented by the formula (VIII):



wherein

a represents a benzene ring or a pyridine ring;

5 x represents a methine group or a nitrogen atom;

X_a is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C3-C10 alkynyl group substituted with a hydroxyl group; an a₀-r₁-b-r₁'- group

{wherein a₀ represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a

15 C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a r₂O-CO- group (wherein r₂ represents a

Cl-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a rr'N-CO- group (wherein r and r' are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an a₁-NH-CO-

group (wherein a_1 represents a C₂-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group), an $a_1'-CO-$ group (wherein a_1' represents a morpholino group), a $rr'N-CH_2-$ group (wherein r and r' are as defined above), a $r_0-(O)_1-$ 5 CONH-CH₂- group (wherein r_0 represents a C₁-C₁₀ alkyl group, and l represents 0 or 1), a $r-OCH_2-$ group (wherein r is as defined above), a r_0-CO- group (wherein r_0 is as defined above), a cyano group, or a sulfomethyl group, r_1 represents a C₁-C₁₀ alkylene group, r_1' represents a single 10 bond or a C₁-C₁₀ alkylene group, and b represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an $a_2-y-CO-NH-$ group (wherein a_2 represents a C₂-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group, and y represents an oxy group or an imino group); a r_0O- 15 COCO-NH- group (wherein r_0 is as defined above); an a_3-z- NH- group (wherein a_3 represents a C₂-C₁₀ alkenyl group, or a C₁-C₁₀ alkyl group substituted with a C₁-C₁₀ alkoxy group, a C₁-C₁₀ alkoxycarbonyl group, a carboxy group or a cyano group, and z represents a carbonyl group or a sulfonyl 20 group); an $a_4-NHCO-$ group {wherein a_4 represents a C₁-C₁₀ alkoxy group, or a C₃-C₁₀ alkenyloxy group, or a r_0-SO_2- group (wherein r_0 is as defined above), or a C₂-C₁₀ alkyl group substituted with a hydroxyl group or a C₁-C₁₀ alkoxy group, or a C₁-C₁₀ alkyl group substituted with a $rO-CO-$ 25 group (wherein r is as defined above), a cyano group or an

aminocarbonyl group, or a $r_0\text{-CO-(}r_0\text{-COCH}_2\text{)CH-}$ group
 (wherein r is as defined above); an $a_5\text{-NHSO}_2^-$ group
 (wherein a_5 represents a C₂-C₁₀ alkyl group substituted
 with a C₁-C₁₀ alkoxy group); a $r_0\text{ON=CH-}$ group (wherein r_0
 5 is as defined above); a $r_0\text{NHCSNH-}$ group (wherein r_0 is as
 defined above); a $r_0\text{NHC(-}Sr_0'\text{)=N-}$ group (wherein r_0 is as
 defined above, r_0' is the same as the different from r_0 and
 has the same meaning as r_0 has); or a $(r_0\text{O})_2\text{P(=O)CH}_2^-$ group
 (wherein r_0 is as defined above);

10 p represents 1, 2 or 3, and when p is 2 or more, X_{as}
 are the same or different;

Y_a represents a halogen atom, a nitro group, a $r_0\text{CO-}$
 NH- group (wherein r_0 is as defined above), a C₁-C₁₀ alkyl
 group or a C₁-C₁₀ alkoxy group;

15 q represents 0, 1 or 2, and when q is 2 or more, Y_{as}
 are the same or different;

q_a represents a $r_a\text{-O-}$ group {wherein r_a represents a
 hydrogen atom, a C₁-C₁₀ alkyl group, a C₃-C₁₀ alkenyl group,
 a C₃-C₁₀ alkynyl group, a C₁-C₁₀ alkyl group substituted
 20 with a $r_0r_0'\text{N-CH}_2^-$ group (wherein r_0 and r_0' are as defined
 above), a $r\text{OCH}_2^-$ group (wherein r is as defined above), a
 $r_0\text{-CO-}$ group (wherein r_0 is as defined above), a C₁-C₁₀
 alkoxy carbonyl group, a carboxy group, an aminocarbonyl
 group or a cyano group, or a $r_3\text{-r}_1\text{-group}$ (wherein r_3
 25 represents a phenyl group or a pyridyl group, and r_1 is as

defined above); a piperidino group; a morpholino group; or
a $r_4r_4'N-$ group (wherein r_4 and r_4' are the same or
different, and represent a hydrogen atom, a C1-C10 alkyl
group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a
5 C2-C10 alkyl group substituted with a C1-C10 alkoxy group,
provided that r_4 and r_4' are not a hydrogen atom at the
same time);

10 t_a represents a r_b- group (wherein r_b is the same as or
different from r_a , and has the same meaning as r_a has) or a
 $r_3'-$ group (wherein r_3' is the same as or different from r_3 ,
and has the same meaning as r_3 has);

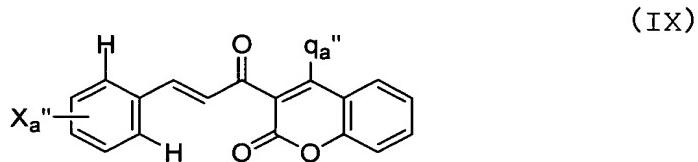
15 K_a represents a hydrogen atom, a halogen atom or a C1-
C10 alkyl group, and L_a represents a hydrogen atom or a C1-
C10 alkyl group; or

20 K_a and L_a together may form a C1-C10 alkylene group or
a 1,3-butadienylene group;

the term "as defined above" used for the same symbols
among plural substituents means that the plural
substituents independently represent the same meaning as
that described above and, among the plural substituents,
although the selection range of substituents to be selected
is the same, selected substituents may be the same or
different as long as they are selected within the range;

25 9. A 2H-1-benzopyran-2-one compound represented by the

formula (IX) :



wherein

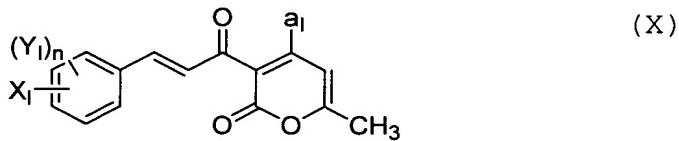
X_a'' represents a C1-C10 alkoxy group substituted with a cyano group or a hydroxymethyl group, or an a_6 -CONH-group

5 a_6 represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C2-C10 alkoxy group substituted with a C1-C10 alkoxy group, or an a_7 -NHCO-group (a_7 represents a C2-C10 alkyl group substituted with a hydroxy group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,

10 or a C1-C10 alkyl group substituted with a C1-C10 alkoxycarbonyl group), and q_a'' represents a hydroxy group, a C1-C10 alkoxy group or a piperidino group;

10. A 2H-pyran-2-one compound represented by the formula

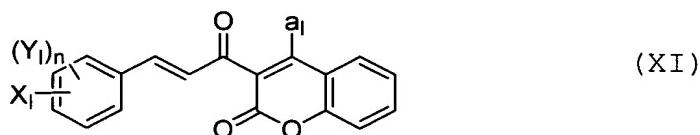
15 (X) :



wherein

X_I represents a C2-C4 alkenyl group substituted with a cyano group, an A_I-R_I-O-group (A_I represents a C1-C4 alkylthio group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group, and R_I represents a C1-C4 alkylene group), an A_{II}-(y)_m-z-NH-group (A_{II} represents a C2-C4 alkenyl group, or a C1-C4 alkyl group substituted with a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group, y represents an oxy group or an imino group, z represents a carbonyl group or a sulfonyl group, and m represents 0 or 1) or an A_{III}-NHCO-group (A_{III} represents a methanesulfonyl group, or a C1-C4 alkyl group substituted with a hydroxy group, a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group), a_I represents a hydroxy group, a C1-C4 alkoxy group, a C2-C4 alkenyloxy group, a C2-C4 alkynyloxy group, a C1-C4 alkylamino group, a C2-C4 alkenylamino group, a C2-C4 alkynylamino group, a morpholino group or a piperidino group, Y_I represents a halogen atom, a nitro group, a C1-C4 alkyl group or a C1-C4 alkoxy group, n represents 0, 1 or 2 and, when n is 2, Y_Is may be different;

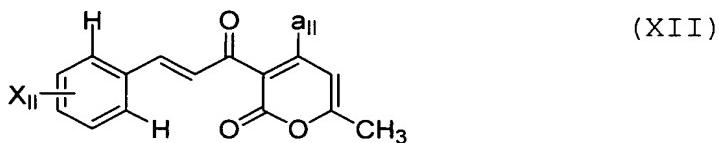
11. A 2H-1-benzopyran-2-one compound represented by the formula (XI):



wherein

X_I represents a C2-C4 alkenyl group substituted with a cyano group, an A_I-R_I-O-group (A_I represents a C1-C4 alkylthio group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group, and R_I represents a C1-C4 alkylene group), an A_{II}-(y)_m-z-NH-group (A_{II} represents a C2-C4 alkenyl group, or a C1-C4 alkyl group substituted with a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group, y represents an oxy group or an imino group, z represents a carbonyl group or a sulfonyl group, and m represents 0 or 1) or an A_{III}-NHCO-group (A_{III} represents a methanesulfonyl group, or a C1-C4 alkyl group substituted with a hydroxy group, a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group), a_I represents a hydroxy group, a C1-C4 alkoxy group, a C2-C4 alkenyloxy group, a C2-C4 alkynyloxy group, a C1-C4 alkylamino group, a C2-C4 alkenylamino group, a C2-C4 alkynylamino group, a morpholino group or a piperidino group, Y_I represents a halogen atom, a nitro group, a C1-C4 alkyl group or a C1-C4 alkoxy group, n represented 0, 1 or 2 and, when n is 2, Y_I's may be different;

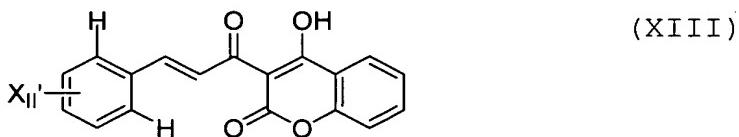
12. A 2H-pyran-2-one compound represented by the formula (XII):



wherein

5 X_{II} represents an allyloxy group, a propargyloxy group, a cyanomethoxy group, a methoxyacetyl amino group, a methoxycarbonylmethylaminocarbonyl group or a 2-cyanoethenyl group, and a_{II} represents a hydroxy group, a methoxy group or a morpholino group;

10 13. A 2H-1-benzopyran-2-one compound represented by the formula (XIII):



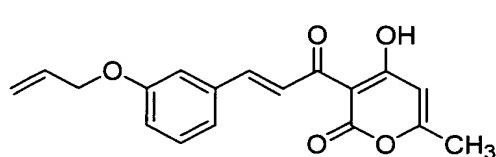
wherein

X_{II'} represents a cyanomethoxy group, a methoxyacetyl amino group or a 2-hydroxyethylaminocarbonyl group;

15

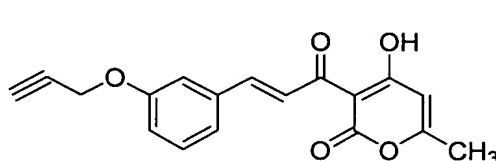
14. A 2H-pyran-2-one compound represented by the formula

(XIV) :



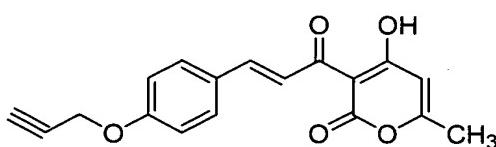
(XIV) ;

15. A 2H-pyran-2-one compound represented by the formula
(XV) :



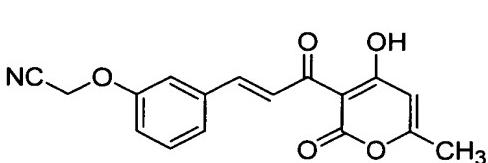
(XV) ;

16. A 2H-pyran-2-one compound represented by the formula
5 (XVI) :



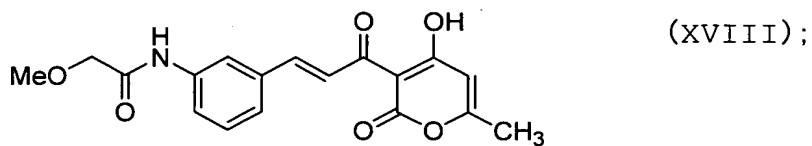
(XVI) ;

17. A 2H-pyran-2-one compound represented by the formula
(XVII) :

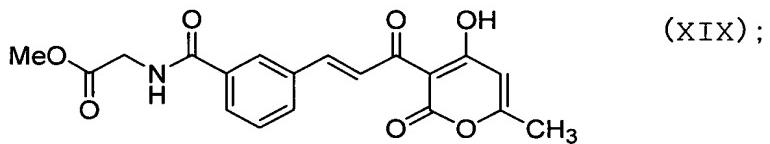


(XVII) ;

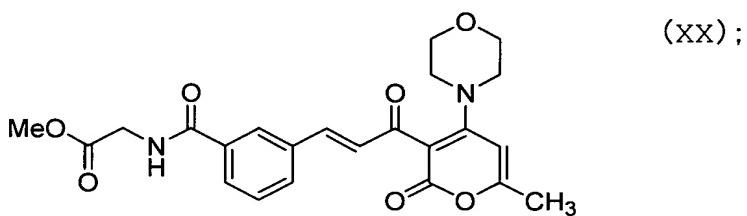
18. A 2H-pyran-2-one compound represented by the formula (XVIII) :



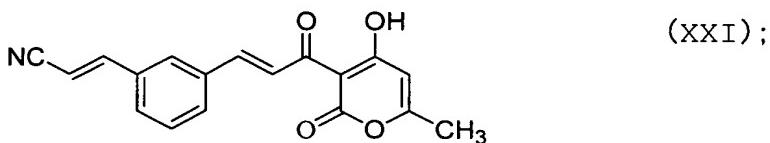
19. A 2H-pyran-2-one compound represented by the formula (XIX) :



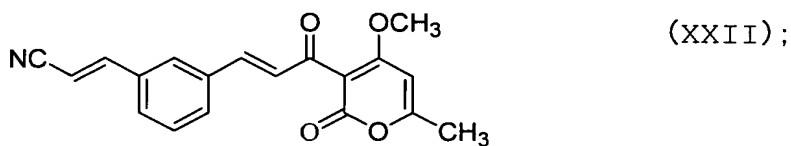
5 20. A 2H-pyran-2-one compound represented by the formula (XX) :



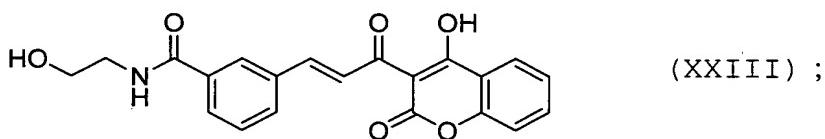
21. A 2H-pyran-2-one compound represented by the formula (XXI) :



22. A 2H-pyran-2-one compound represented by the formula (XXII) :



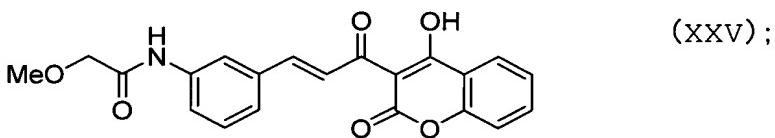
23. A 2H-a-benzopyran-2-one compound represented by the formula (XXIII) :



5 24. A 2H-a-benzopyran-2-one compound represented by the formula (XXIV) :

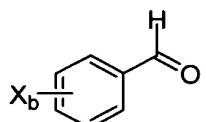


25. A 2H-1-benzopyran-2-one compound represented by the formula (XXV) :



26. A benzaldehyde derivative represented by the formula

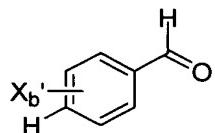
(XXVI-1) :



(XXVI-1) ;

[wherein X_b represents a MeO-COCH₂NHCO-group, a MeOCH₂CHO-CO-NH-group, a MeOCH₂CH₂NH-CO-NH-group, a MeSO₂NH-CO-group,
 5 a NCCH₂NH-CO-group, a F₂C=CH-group, a MeO-CO-(MeO-COCH₂-)CH-group, a MeOCH₂CH₂NH-SO₂-group, a MeO-NHCO-group or a
 CH₂=CHCH₂O-NHCO-group.] ;

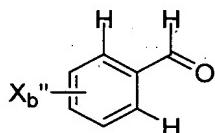
the formula (XXVI-2) :



(XXVI-2)

[wherein X_{b'} represents a MeOCH₂CO-NH-group or a
 10 MeOCH₂CH₂NH-CO-group.] ;

the formula (XXVI-3) :



(XXVI-3)

[wherein X_{b''} represents a MeSCH₂CH₂O-group, a HOCH₂CH₂OCH₂-group or a NC-CH₂CH₂-group.] or

the formula (XXVI-4) :



[wherein X_b'' represents a $\text{NCCH}=\text{CH}$ -group, a $\text{H}_2\text{NCOCH}_2\text{O}$ -group, a MeCOCH_2O -group, a $\text{CH}_3\text{O}-\text{COCH}_2\text{SCH}_2$ -group, a tetrahydropyran-4-ylidenemethyl group, a $\text{CH}_3\text{O}-\text{COCO-NH}$ -group or a $(\text{CH}_3\text{O})_2\text{P}(\text{=O})\text{CH}_2$ -group.] ; or 6-formyl-2-[(2-methoxyethyl)aminocarbonyl]pyridine;

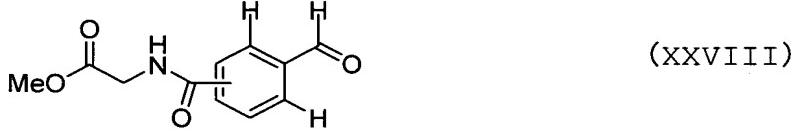
5

27. A benzaldehyde derivative represented by the formula

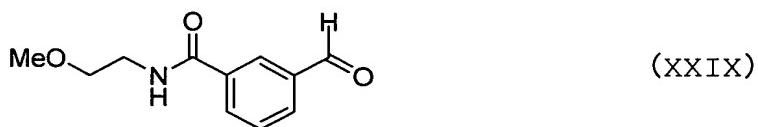
(XXVII) :



28. A benzaldehyde derivative represented by the formula
10 (XXVIII) :



29. A benzaldehyde derivative represented by the formula
(XXIX) :



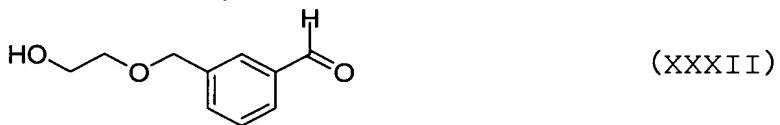
30. A benzaldehyde derivative represented by the formula
(XXX) :



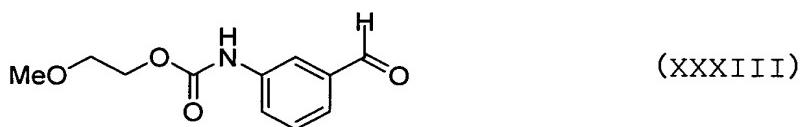
31. A benzaldehyde derivative represented by the formula
(XXXI) :



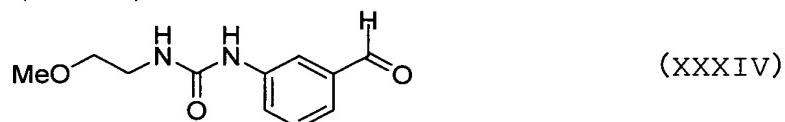
5 32. A benzaldehyde derivative represented by the formula
(XXXII) :



33. A benzaldehyde derivative represented by the formula
(XXXIII) :



34. A benzaldehyde derivative represented by the formula (XXXIV) :



35. A benzaldehyde derivative represented by the formula (XXXV) :



5 36. A benzaldehyde derivative represented by the formula (XXXVI) :



37. A benzaldehyde derivative represented by the formula (XXXVII) :



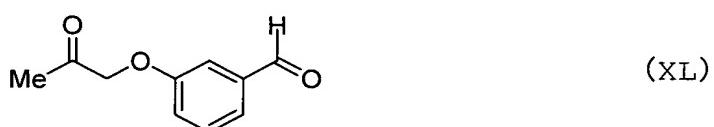
38. A benzaldehyde derivative represented by the formula
 (XXXVIII) :



39. A benzaldehyde derivative represented by the formula
 5 (XXXIX) :



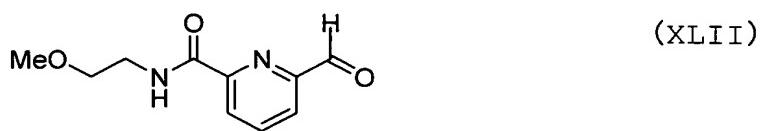
40. A benzaldehyde derivative represented by the formula
 (XL) :



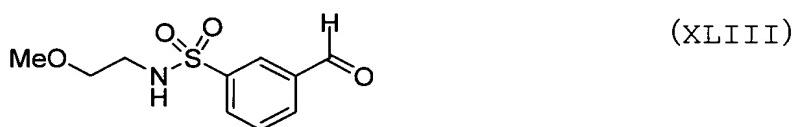
41. A benzaldehyde derivative represented by the formula
 (XLI) :



10 42. A pyridinecarbaldehyde derivative represented by the
 formula (XLII) :



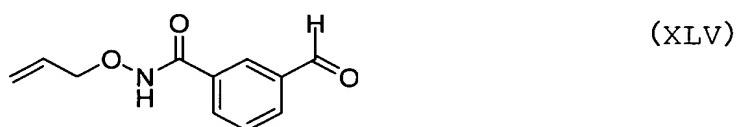
43. A benzaldehyde derivative represented by the formula
(XLIII) :



44. A benzaldehyde derivative represented by the formula
(XLIV) :

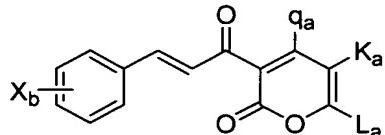


5 45. A benzaldehyde derivative represented by the formula
(XLV) :



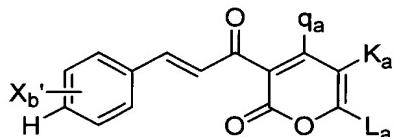
46. A process for producing a cynamoyl compound represented by the formula (XLVI-1):

(XLVI-1)

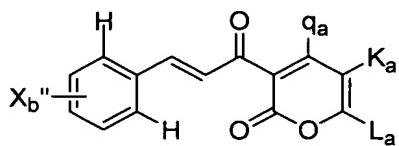


wherein X_b represents a $\text{MeO}-\text{COCH}_2\text{NHCO}-$ group, a $\text{MeOCH}_2\text{CH}_2\text{O}-\text{CO-NH}-$ group, a $\text{MeOCH}_2\text{CH}_2\text{NH-CO-NH-}$ group, a $\text{MeSO}_2\text{NH-CO-}$ group,
5 a $\text{NCCH}_2\text{NH-CO-}$ group, a $\text{F}_2\text{C=CH-}$ group, a $\text{MeO-CO-(MeO-COCH}_2)-\text{CH-}$ group, a $\text{MeOCH}_2\text{CH}_2\text{NH-SO}_2-$ group, a MeO-NHCO- group or a $\text{CH=CHCH}_2\text{O-NHCO-}$ group, and q_a , K_a and L_a are as defined below,
the formula (XLVI-2):

(XLVI-2)

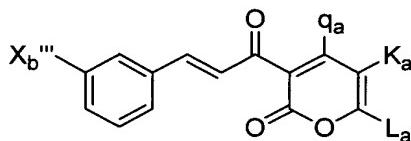


10 wherein X_b' represents a $\text{MeOCH}_2\text{CO-NH-}$ group or a $\text{MeOCH}_2\text{CH}_2\text{NH-CO-}$ group, q_a , K_a and L_a are as defined below, the formula (XLVI-3):



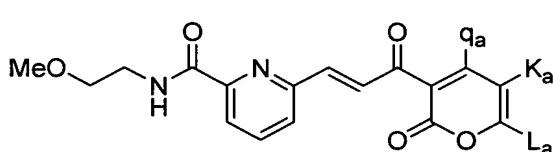
(XLVI-3)

wherein X_b'' represents a $\text{MeSCH}_2\text{CH}_2\text{O}$ -group, a $\text{HOCH}_2\text{CH}_2\text{OCH}_2$ -group or a $\text{NC-CH}_2\text{CH}_2$ -group, and q_a , K_a and L_a are as defined below, the formula (XLVI-4) :



(XLVI-4)

wherein X_b''' represents a NCCH=CH -group, a $\text{H}_2\text{NCOCH}_2\text{O}$ -group,
5 a MeCOCH_2O -group, a $\text{CH}_3\text{O-COCH}_2\text{SCH}_2$ -group, a tetrahydropyran-4-ylidenemethyl group, a $\text{CH}_3\text{O-COCO-NH}$ -group or a $(\text{CH}_3\text{O})_2\text{P}(\text{=O})\text{CH}_2$ -group, and q_a , K_a and L_a are as defined below, or the formula (XLVI-5) :



(XLVI-5)

wherein q_a , K_a and L_a are as defined below,

10 which comprises reacting a benzaldehyde derivative represented by the formula (XXVI-1), the formula (XXVI-2),

the formula (XXVI-3) or the formula (XXVI-4), or 6-formyl-2-[(2-methoxyethyl)aminocarbonyl]pyridine as defined in the above item 26, with a compound represented by the formula (XLVI) :

5



wherein

q_a represents a r_a-O-group {wherein r_a represents a hydrogen atom; a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10 alkynyl group; a C1-C10 alkyl group substituted with a r₀r_{0'}N-CH₂- group (wherein r₀ and r_{0'} are the same or different, and represent a C1-C10 alkyl group), a rOCH₂- group (wherein r represents a hydrogen atom or a C1-C10 alkyl group), a r₀-CO- group (wherein r₀ is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group; or a r₃-r₁-group (wherein r₃ represents a phenyl group or a pyridyl group, and r₁ represents a C1-C10 alkylene group)}, a piperidino group, a morpholino group, or a r₄r_{4'}N- group (wherein r₄ and r_{4'} are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10

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15

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alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that r₄ and r_{4'} are not a hydrogen atom at the same time),

K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and L_a represents a hydrogen atom or a C1-C10 alkyl group, or

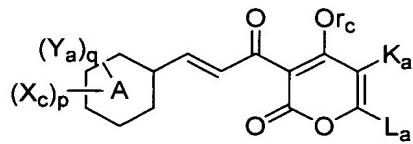
K_a and L_a together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

47. A process for producing a cinnamoyl compound represented by the formula (XLVII''):

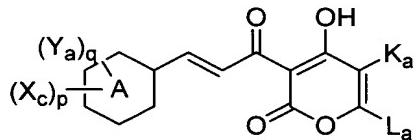
20

(XLVII'')



wherein A, X_c, Y_a, p, q, r_c, K_a and L_a are as defined below, and the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range; which comprises reacting a cinnamoyl compound represented by the formula (XLVII):

(XLVII)



wherein

A represents a benzene ring or a pyridine ring,
 X_c is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C2-C10 alkynyl group substituted with a hydroxymethyl group; an a_{0c}-r₁-b-r₁'-group {wherein a_{0c} represents a methyl group substituted

with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a r_2O-CO- group
5 (wherein r_2 represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a $rr'N-CO-$ group (wherein r and r' are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an $a_1-NH-CO-$ group (wherein a_1 represents a C2-C10 alkyl group
10 substituted with a C1-C10 alkoxy group), an $a_1'-CO-$ group (wherein a_1' represents a morpholino group), a $rr'N-CH_2-$ group (wherein r and r' are as defined above), a $r_0-(O)_1-$ CONH-CH₂- group (wherein r_0 represents a C1-C10 alkyl group, and l represents 0 or 1), a $r-OCH_2-$ group (wherein r is as
15 defined above), a r_0-CO- group (wherein r_0 is as defined above), or a cyano group, r_1 represents a C1-C10 alkylene group, r_1' represents a single bond or a C1-C10 alkylene group, and b represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an a_2-
20 $y-CO-NH-$ group (wherein a_2 represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and y represents an oxy group or an imino group); a $r_0O-COCO-NH-$ group (wherein r_0 is as defined above); an $a_3-z-NH-$ group (wherein a_3
25 represents a C2-C10 alkenyl group, or a C1-C10 alkyl group substituted with a C1-10 alkoxy group, a C1-C10

alkoxycarbonyl group or a cyano group, and z represents a carbonyl group or a sulfonyl group); an $a_4\text{-NHCO-}$ group (wherein a_4 represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a $r_0\text{-SO}_2\text{-}$ group (wherein r_0 is as defined above), or a C2-C10 alkyl group substituted with a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a $r_0\text{O-CO-}$ group (wherein r_0 is as defined above), a cyano group or an aminocarbonyl group, or a $r_0\text{O-CO-(}r_0\text{O-COCH}_2\text{)CH-}$ group (wherein r_0 is as defined above)); an $a_5\text{-NHSO}_2\text{-}$ group (wherein a_5 represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a $r_0\text{ON=CH-}$ group (wherein r_0 is as defined above); a $r_0\text{NHCSNH-}$ group (wherein r_0 is as defined above); a $r_0\text{NHC(-Sr}_0'\text{)=N-}$ group (wherein r_0 is as defined above, r_0' is the same as 15 the different from r_0 and has the same meaning as r_0 has); or a $(r_0\text{O})_2\text{P(=O)CH}_2\text{-}$ group (wherein r_0 is as defined above); p represents 1, 2 or 3, and when p is 2 or more, X_{cs} are the same or different;

Y_a represents a halogen atom, a nitro group, a $r_0\text{CO-}$ 20 NH- group (wherein r_0 is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

q represents 0, 1 or 2, and when q is 2 or more, Y_{as} are the same or different;

K_a represents a hydrogen atom, a halogen atom or a C1- 25 C10 alkyl group, and L_a represents a hydrogen atom or a C1-

C10 alkyl group, or

K_a and L_a together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above" used for the same symbols
 5 among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or
 10 different as long as they are selected within the range, with a compound represented by the formula (XLVII'):

r_c-V (XLVII')

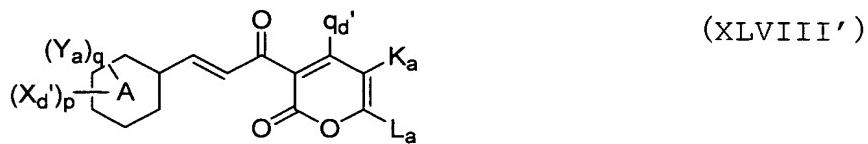
wherein r_c represents a t_c' -group { wherein t_c' represents a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10
 15 alkynyl group; a C1-C10 alkyl group substituted with a $r_0r_0'N-CH_2-$ group (wherein r_0 and r_0' are as defined above), a $rOCH_2-$ group (wherein r is as defined above), a r_0-CO- group (wherein r_0 is as defined above), a C1-C10 alkoxy carbonyl group, an aminocarbonyl group or a cyano
 20 group; or a r_3-r_1- group (wherein r_3 represents a phenyl group or a pyridyl group, and r_1 is as defined above) }, and V represents a leaving group, and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as
 25

that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

5

48. A process for producing a cinnamoyl compound represented by the formula (XLVIII'):



wherein

10 A is as defined below,

X_d' is a substituent on a carbon atom, and represents an $a_{0d}'-r_1-b-r_1'$ - group (wherein a_{0d}' represents a carboxy group, and r_1 , r_1' and b are as defined below), a HO-COCO-NH- group, an $a_{3d}'-z-NH-$ group (wherein a_{3d}' represents a C1-C10 alkyl group substituted with a carboxy group, and z is as defined below), or an $a_{4d}'-NHCO-$ group (wherein a_{4d}' represents a C1-C10 alkyl group substituted with a carboxy group, or a HO-CO-(HO-COCH₂)CH- group),

15 p is as defined below and, and when p is 2 or more,

20 X_d' 's are the same or different,

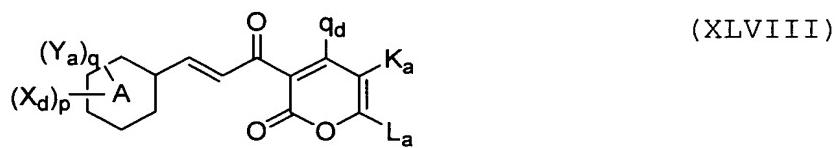
Y_a and q are as defined below,

q_d' represents a r_d'' -O- group {wherein r_d'' represents a hydrogen atom; a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10 alkynyl group; a C1-C10 alkyl group substituted with a r_0r_0' N-CH₂- group (wherein r_0 and r_0' are as defined below), a rOCH₂- group (wherein r is as defined below), a r_0 -CO- group (wherein r_0 is as defined below), a carboxy group, an aminocarbonyl group or a cyano group; or a r_3-r_1 - group (wherein r_3 represents a phenyl group or a pyridyl group, and r_1 is as defined below)}, a piperidino group, a morpholino group, or a r_4r_4' N- group (wherein r_4 and r_4' are as defined below, provided that they are not hydrogen atom at the same time),

K_a and L_a are as defined below, and

the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

which comprises hydrolyzing a cinnamoyl compound represented by the formula (XLVIII):



wherein

A represents a benzene ring or a pyridine ring,

X_d is a substituent on a carbon atom, and represents

an $a_{0d}-r_1-b-r_1'$ - group {wherein a_{0d} represents a r_2O-CO-

5 group (wherein r_2 represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxy group), r_1

represents a C1-C10 alkylene group, r_1' represents a single bond or a C1-C10 alkylene group, and b represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or

10 an imino group}, a $r_0O-COCO-NH-$ group (wherein r_0 represents a C1-C10 alkyl group), an $a_{3d}-z-NH-$ group (wherein a_{3d}

represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy carbonyl group, and z represents a carbonyl group or a sulfonyl group), or an $a_{4d}-NHCO-$ group {wherein a_{4d}

15 represents a C1-C10 alkyl group substituted with a r_0O-CO- group (wherein r_0 is as defined above), or a $r_0O-CO-(r_0O-$

COCH₂)CH- group (wherein r_0 is as defined above) },

p represents 1, 2 or 3, and when p is 2 or more, X_d s are the same or different,

20 Y_a represents a halogen atom, a nitro group, a r_0CO-

NH- group (wherein r_0 is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group,

q represents 0, 1 or 2, and when q is 2 or more, Y_a s are the same or different;

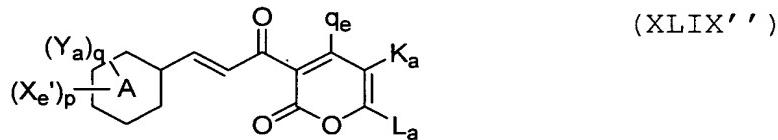
5 q_d represents a r_d -O- group {wherein r_d represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a r_0r_0' -N-CH₂- group (wherein r_0 is as defined above, and r_0' is the same as or different from r_0 and has the same meaning as r_0 has), a r OCH₂- group (wherein r is as defined above), a r_0 -CO- group (wherein r_0 is as defined above), a C1-C10 alkoxycarbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a r_3 - r_1 -group (wherein r_3 represents a phenyl group or a pyridyl group, and r_1 is as defined above)}; a piperidino group; a morpholino group; or a r_4r_4' -N- group (wherein r_4 and r_4' represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that they are not a hydrogen atom at the same time),,

K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and L_a represents a hydrogen atom or a C1-C10 alkyl group, or

25 K_a and L_a together may form a C1-C10 alkylene group or a 1,3-butadienylene group,

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents,
5 although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

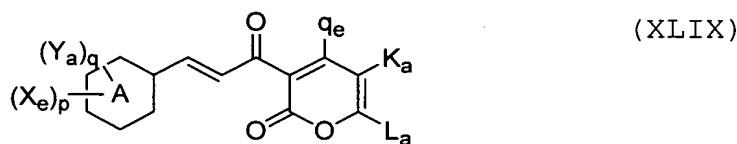
49. A process for producing a cinnamoyl compound
10 represented by the formula (XLIX''):



wherein X_e' represents an $a_{0e}'-r_1''-b''-$ group {wherein a_{0e}' represents an $a_{0e}-$ group (wherein a_{0e} is as defined below), a 3-sulfopropyl group or a 4-sulfobutyl group, and r_1'' and b'' are as defined below}, and A , Y_a , p , q , q_e , K_a and L_a are as defined below, and the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range
15 of substituents to be selected is the same, selected
20

substituents may be the same or different as long as they are selected within the range;

which comprises reacting a cinnamoyl compound represented by the formula (XLIX) :



5 wherein

A represents a benzene ring or a pyridine ring,

X_e is a substituent on a carbon atom, and represents a H-b"- group (wherein b" represents an oxy group or a thio group),

10 p represents 1, 2 or 3 and, when p is 2 or more, X_{es} are the same or different,

Y_a represents a halogen atom, a nitro group, a r₀CO-NH- group (wherein r₀ is a C1-C10 alkyl group), a C1-C10 alkyl group or a C1-C10 alkoxy group,

15 q represents 0, 1 or 2, and when q is 2 or more, Y_{as} are the same or different;

q_e represents a r_e-O- group {wherein r_e represents a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a 20 r₀r_{0'}N-CH₂- group (wherein r₀ is as defined above, and r_{0'}

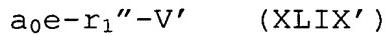
is the same as or different from r_0 and has the same meaning as r_0 has), a $rOCH_2-$ group (wherein r represents a hydrogen atom or a C1-C10 alkyl group), a r_0-CO- group (wherein r_0 is as defined above), a C1-C10 alkoxy carbonyl group, an aminocarbonyl group or a cyano group, or a r_3-r_1- 5 group (wherein r_3 represents a phenyl group or a pyridyl group, and r_1 represents a C1-C10 alkylene group); a piperidino group; a morpholino group; or a $r_4r_4'N-$ group (wherein r_4 and r_4' represent a hydrogen atom, a C1-C10 10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that they are not a hydrogen atom at the same time),

K_a represents a hydrogen atom, a halogen atom or a C1-15 C10 alkyl group, and L_a represents a hydrogen atom or a C1-C10 alkyl group, or

K_a and L_a together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above" used for the same symbols 20 among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or 25 different as long as they are selected within the range,

with a compound represented by the formula (XLIX'):



wherein

a_0e represents a methyl group substituted with a C1-

5 C10 alkylthio group, a methyl group substituted with a C1-
C10 alkylsulfinyl group, a methyl group substituted with a
C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-
C10 alkynyl group, a r_2O-CO- group (wherein r_2 represents a
C1-C10 alkyl group, or a C2-C10 alkyl group substituted
10 with a hydroxy group), a $rr'N-CO-$ group (wherein r and r'
are the same or different, and represent a hydrogen atom or
a C1-C10 alkyl group), an $a_1-NH-CO-$ group (wherein a_1
represents a C2-C10 alkyl group substituted with a C1-C10
alkoxy group), an $a_1'-CO-$ group (wherein a_1' represents a
15 morpholino group), a $rr'N-CH_2-$ group (wherein r is as
defined above, r' is the same as or different from r and
has the same meaning as r has), a $r_0-(O)_1-CONH-CH_2-$ group
(wherein r_0 is as defined above, and l represents 0 or 1),
a $r-OCH_2-$ group (wherein r is as defined above), a r_0-CO-
20 group (wherein r_0 is as defined above) or a cyano group,

 r_1'' is the same as or different from r_1 and has the
same meaning as r_1 has, and v' represents a leaving group
or a hydroxy group, or 1,3-propanesultone or 1,4-
butanesultone

25 the term "as defined above" used for the same symbols

among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected 5 is the same, selected substituents may be the same or different as long as they are selected within the range;

50. Use of a compound according to any one of claims
1 to 25 as an active ingredient for suppressing
10 transcription of a Type I collagen gene;

51. A composition for suppressing transcription of a
Type I collagen gene, which comprises a compound according
to any one of claims 1 to 25 and an inert carrier;

15
52. Use of a compound according to any one of claims
1 to 25 as an active ingredient for decreasing expression
of a Type I collagen gene to induce a reduction in
accumulation of collagen and thereby improving tissue
20 fibrosis;

25
53. A composition for improving tissue fibrosis,
which comprises a compound according to any one of claims 1
to 25 and an inert carrier;

54. A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to any one of claims 1 to 25 to a mammal in need thereof;

5

55. Use of a compound according to any one of claims 1 to 25 as an active ingredient for suppressing the activity of TGF- β ;

10 56. A composition for suppressing the activity of TGF- β , which comprises a compound according to any one of claims 1 to 25 and an inert carrier;

15 57. Use of a compound according to any one of claims 1 to 25 as an active ingredient for inhibiting a promoting effect of TGF- β on transition to a hair regression phase to induce extension of a hair growth phase and thereby providing hair-growing effect;

20 58. A composition for hair growth which comprises a compound according to any one of claims 1 to 25 and an inert carrier;

25 59. A method for growing hair, which comprises administering an effective amount of a compound according

to any one of claims 1 to 25 to a mammal in need thereof;

60. Use of a compound according to any one of claims 1 to 25 as an active ingredient for treating chronic renal failure;

61. An agent for treating chronic renal failure, which comprises a compound according to any one of claims 1 to 25 and an inert carrier;

10

62. Use of a compound according to claim 2 as an active ingredient for suppressing transcription of a Type I collagen gene;

15

63. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 2 and an inert carrier;

20

64. Use of a compound according to claim 3 as an active ingredient for suppressing transcription of a Type I collagen gene;

25

65. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 3 and an inert carrier;

66. Use of a compound according to claim 4 as an active ingredient for suppressing transcription of a Type I collagen gene;

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67. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 4 and an inert carrier;

10 68. Use of a compound according to claim 10 as an active ingredient for suppressing transcription of a Type I collagen gene;

15 69. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 10 and an inert carrier;

20 70. Use of a compound according to claim 11 as an active ingredient for suppressing transcription of a Type I collagen gene;

71. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 11 and an inert carrier;

25

72. Use of a compound according to claim 14 to 25 as an active ingredient for suppressing transcription of a Type I collagen gene;

5 73. A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 14 to 25 and an inert carrier.